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## The Klamath Hydroelectric Settlement Agreement: Federal Law, Local Compromise, and the Largest Dam Removal Project in History

David N. Allen

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## **The Klamath Hydroelectric Settlement Agreement: Federal Law, Local Compromise, and the Largest Dam Removal Project in History**

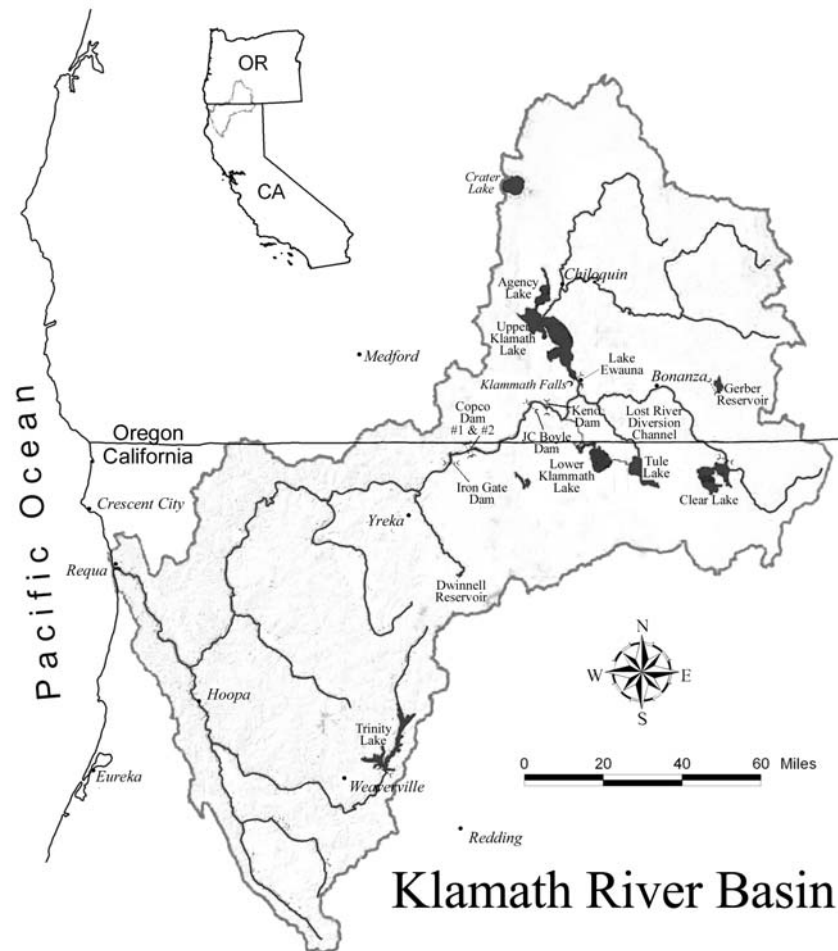
*David N. Allen\**

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\* J.D. Candidate, Lewis and Clark Law School (expected 2010), B.A. Trinity University (2003). The author would like to thank Glen Spain for sharing his insight on the Klamath agreements. The author would also like to thank Michael Blumm for his invaluable guidance through several drafts.

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Source: Map courtesy of U.S. Bureau of Reclamation.

## I. Introduction

The headwaters of the Klamath River draw from Upper Klamath Lake and from a unique wetland complex in south-central Oregon and northern California known as the Upper Klamath Basin.<sup>1</sup> Along its 263-mile journey from the Upper Basin to the Pacific Ocean, the Klamath River passes through the Cascade and Coast Mountain Ranges, making it one of only

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1. Office of Energy Projects, Fed. Energy Regulatory Comm'n, Final Environmental Impact Statement for Relicensing of the Klamath Hydroelectric Project No. 2082-027, at § 3.1 3-1 (Nov. 16, 2007), *available at* <http://www.ferc.gov/industries/hydropower/enviro/eis/2007/11-16-07.asp> [hereinafter FERC FEIS].

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three river systems to bisect the Cascades.<sup>2</sup> The native people of the Klamath Basin have fished the river for thousands of years, depending on historically massive migrations of chinook and coho salmon for their subsistence.<sup>3</sup> Before non-native inriver salmon harvesting began in 1876,<sup>4</sup> the Klamath River supported the third-largest salmon runs in the United States, with an estimated 880,000 returning adult fish per year.<sup>5</sup> Over the last century, however, major changes in hydrology, dam building, habitat destruction, and disease have decimated the Klamath River salmon population, reducing some runs to just 2 percent of their historic size and fueling decades of bitter conflicts.<sup>6</sup>

In 2002, the plight of the Klamath River salmon became national news when an estimated 79,000 adult chinook salmon died in the lower forty

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2. UNITED STATES GEOLOGICAL SURVEY, KLAMATH BASIN: A WATERSHED APPROACH TO SUPPORT HABITAT RESTORATION, SPECIES RECOVERY, AND WATER RESOURCE PLANNING 1 (2007), available at <http://wfrc.usgs.gov/pubs/factsheetpdf/kbawsafs080807.pdf>; Klamath Riverkeeper, The Klamath River Watershed, <http://www.klamathriver.org/watershed.html> (last visited Jan. 27, 2009). The Klamath is unusual in that its headwaters are not in the mountains. Because the Klamath River flows from the broad, flat Upper Klamath Basin to two rugged mountain ranges it has been described as a “river upside down.” Russ Rymer, *Reuniting a River*, NATIONAL GEOGRAPHIC MAGAZINE, Dec., 2008, at 140; Steve Kadel, *Navigating the Klamath*, HERALD AND NEWS, Feb. 18, 2008, available at <http://www.heraldandnews.com/articles/2008/02/22/watermarks/part%201/water5.txt>. The Pitt River (a tributary of the Sacramento River) and the Columbia River are the other two rivers that pass through the Cascade Range. *Id.*

3. SARAH A. KRUSE & ASTRID J. SCHOLZ, PRELIMINARY ECONOMIC ASSESSMENT OF DAM REMOVAL: THE KLAMATH RIVER 2 (2006); INSTITUTE FOR FISHERIES RESOURCES, ESTIMATES OF PRE-DEVELOPMENT KLAMATH RIVER SALMON RUN SIZE 2 (1998) [hereinafter INSTITUTE FOR FISHERIES RESOURCES].

4. PETER B. MOYLE, INLAND FISHES OF CALIFORNIA 258 (2002).

5. INSTITUTE FOR FISHERIES RESOURCES, *supra* note 3, at 2 tbl. 2; MOYLE, *supra* note 4, at 258 (estimating the historic fall run of chinook salmon at 500,000 fish). The Columbia River and the Sacramento-San Joaquin River system supported the largest and second-largest historic runs, respectively. INSTITUTE OF FISHERIES, *supra* note 3, at 2 tbl. 2.

6. Felicity Barringer, *Pact Would Open River, Removing Four Dams*, N.Y. TIMES, Nov. 14, 2008; Adell Louise Amos, *Hydropower Reform and the Impact of the Energy Policy Act of 2005 on the Klamath Basin: Renewed Optimism or Same Old Song?* 22 J. ENVTL. L. & LITIG. 1 (2007) (detailing resource conflicts in the Klamath Basin and the Federal Energy Regulatory Commission relicensing process for the Klamath Hydroelectric Process) [hereinafter Amos]; Glen Spain, *Dams, Water Reforms, and Endangered Species in the Klamath Basin*, 22 J. ENVTL. L. & LITIG. 49 (2007) (cataloguing resource conflicts in the Klamath Basin) [hereinafter Spain]. Two recent films document resource conflicts in the Klamath Basin. For a detailed portrayal of the political struggle between downstream Tribal fireman and upstream irrigators see, *BATTLE FOR THE KLAMATH* (Veriscope Production 2005). For a moving portrayal of the Yurok, Hoopa, Karuk and Klamath Tribes’ battle against PacifiCorp and the Klamath Dams see, *UPSTREAM BATTLE* (Preview Production 2008).

miles of the river.<sup>7</sup> The die-off was one of the worst fish kills in U.S. history.<sup>8</sup> For the tribal fishermen of the Lower Klamath whose ancestors lived in harmony with the fish for thousands of years and for whom the fish are sacred, the fish kill was devastating.<sup>9</sup> For PacifiCorp, a private electric company whose license to operate four hydroelectric dams on the Klamath River would need to be renewed in two years, the national attention was bad timing.<sup>10</sup>

The Federal Power Act ("FPA") authorizes the Federal Energy Regulatory Commission ("FERC") to issue licenses for non-federal hydropower projects like PacifiCorp's Klamath Hydroelectric Project ("KHP").<sup>11</sup> Advocates for fish passage have used two provisions of the FPA to ensure that environmental costs are factored into the total cost of a dam:<sup>12</sup> 1) section 4(e) of the FPA requires that FERC accept license conditions imposed by federal land management agencies,<sup>13</sup> and 2) section 18 of the FPA requires FERC to include in the license any conditions proscribed by other agencies, such as fishways.<sup>14</sup> Applications of sections 4(e) and 18 can result in driving the cost of a hydroelectric project beyond the point of

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7. The California Department of Fish and Game ("CDFG") originally estimated the number to be 34,000 dead adult fish. CDFG later explained that their original estimate was "very conservative" and underestimated the number of adult fish by 45,000. CALIFORNIA DEPARTMENT OF FISH AND GAME, SEPTEMBER 2002 KLAMATH RIVER FISH-KILL: FINAL ANALYSIS OF CONTRIBUTING FACTORS AND IMPACTS 158 (2004). Unfortunately, news reports relied on the earlier inaccurate figure. See Timothy Egan, *As Thousands of Salmon Die, Fight for River Erupts Again*, N.Y. TIMES, Sept. 28, 2002 (estimating the number to be between 10,000 and 30,000 adult fish); Rymer, *supra* note 2, at 140 (estimating the number to be at least 30,000 adult fish). Later reports relied on the revised figure. See BATTLE FOR THE KLAMATH, *supra* note 6 (estimating the number to be 70,000 adult fish). The 2002 fish kill was not the Klamath Basin's first. See Carl Ullman, *Adjudicating Water Rights While Addressing Broad Resource Issues: Fitting a Round Peg into a Square Hole*, American Bar Association, 28<sup>th</sup> Annual Water Law Conference, at 1 (Manuscript 2010 on file with author). Smaller fish kills in Upper Klamath Lake in 1995, 1996, and 1997 rescieved less attention because they did not involve salmon. *Id.*

8. See Rymer, *supra* note 2, at 140.

9. See *id.*

10. *Id.* PacifiCorp, Company Facts, <http://www.pacificorp.com/Navigation/Navigation3877.html> (last visited Jan. 29, 2009) [hereinafter Company Facts].

11. Federal Power Act, 16 U.S.C. §§ 791–825 (2006).

12. See David H. Becker, *The Challenges of Dam Removal: The History and Lessons of the Condit Dam and the Potential Threats from the 2005 Federal Power Act Amendments*, 36 ENV'T. L. 811, 814 (2006) [hereinafter Becker].

13. 16 U.S.C. § 797(e).

14. *Id.* at § 811.

profitability.<sup>15</sup> To receive a FERC license, a private dam operator must also comply with the Clean Water Act ("CWA"). Section 401 of the CWA requires an applicant for any federal license for activity that could result in a discharge to navigable waters to obtain certification of compliance with state water quality standards from the state or states involved.<sup>16</sup> The certification process can serve as a functional state veto over a potential FERC license for a project that cannot comply with state water quality standards because FERC cannot issue a license without the state certification.<sup>17</sup>

PacifiCorp's license for the KHP includes four hydroelectric dams on the mainstem of the Klamath River: Iron Gate, Copco 1, Copco 2, and J.C. Boyle.<sup>18</sup> None of the four dams provide adequate fish passage, and they therefore block an estimated 570 stream-miles of historically productive salmon habitat.<sup>19</sup> With its license for the KHP set to expire on March 1, 2006,<sup>20</sup> less than two years after the fish kill, PacifiCorp applied to FERC for a renewal of its license on February 26, 2004.<sup>21</sup> Acting under section 18 of the FPA, the National Marine Fisheries Service ("NMFS") and the Fish and Wildlife Service ("FWS") prescribed fish screens and fishways for all four dams, to be financed by PacifiCorp.<sup>22</sup> Even if PacifiCorp agreed to construct volitional fish passage at an estimated cost of over \$46 million each year for the life of any new license,<sup>23</sup> the states of Oregon and California were in a position to deny water quality certification, blocking license renewal

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15. See Becker, *supra* note 12, at 814; see also Michael C. Blumm & Viki A. Nadol, *The Decline of the Hydropower Czar and the Rise of Agency Pluralism in Hydroelectric Licensing*, 26 COLUM. J. ENVTL. L. 81, 130 (2001).

16. Federal Water Pollution Control Act, 33 U.S.C. § 1341(a)(1).

17. See Kevin Beaton et al., *The 1998 Idaho Water Quality Symposium*, 35 IDAHO L. REV. 453, 545 (1999); see also Becker, *supra* note 12, at 822; Spain, *supra* note 6, at 110. The CWA provides that "[n]o license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be." 33 U.S.C. § 1341(a)(1).

18. FERC FEIS, *supra* note 1, at xxxiii.

19. Spain, *supra* note 6, at 102-3. The figure of 570 stream-miles of habitat includes the mainstem of the Klamath River and its tributaries above the Iron Gate Dam. *Id.*

20. FERC FEIS, *supra* note 1, at xxxiii. PacifiCorp's fifty-year license was issued in 1956 and expired in 2006. The company is currently operating the Klamath Hydroelectric Project under an annual license. *Id.*

21. *Id.*

22. FERC FEIS, *supra* note 1, § 2.3.1.3, 2-27.

23. FERC FEIS, *supra* note 1, § 4.4, 4-4. This cost, FERC noted, exceeds the value of the power likely to be generated by the dams during that time frame.

altogether.<sup>24</sup>

On November 13, 2008, after four years of hearings, appeals, and studies, the federal government, the states, and PacifiCorp signed an "Agreement in Principle"<sup>25</sup> ("AIP") addressing a framework for removal of the four major dams on the Klamath River, and promising to develop a final agreement shortly.<sup>26</sup> On September 30, 2009, PacifiCorp and twenty-nine federal, state, tribal, county, environmental, irrigation, and fishing organizations announced the Klamath Hydroelectric Settlement Agreement ("KHSa") outlining a plan for dam removal by 2020.<sup>27</sup> If the parties follow through with the KHSa framework, the result would be the largest dam removal in history.<sup>28</sup> On February 18, 2010, representatives from more than fifty organizations signed both the KHSa and the Klamath Basin Restoration Agreement ("KBRA"), a separate agreement on river restoration and water allocation.<sup>29</sup> Together, the KHSa and KBRA offer an unprecedented plan for comprehensive river restoration.<sup>30</sup> However, combining federal legislation needed for the two very different agreements may threaten the goal of dam removal by 2020.<sup>31</sup> Additionally, preconditions on a final determination on dam removal,<sup>32</sup> along with uncertainties about funding,<sup>33</sup> liability,<sup>34</sup> and potential litigation<sup>35</sup> could also each frustrate achieving dam removal by

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24. See *infra* Part III.C.5.

25. AGREEMENT IN PRINCIPLE (2008), [http://www.doi.gov/news/08\\_News\\_Releases/klamathaip.pdf](http://www.doi.gov/news/08_News_Releases/klamathaip.pdf) [hereinafter AIP].

26. News Release, U.S. Department of the Interior, Agreement in Principle Marks First Critical Step on Presumptive Path to Remove Four Klamath River Dams (Nov. 13, 2008), available at [https://www.doi.gov/news/08\\_News\\_Releases/111308.html](https://www.doi.gov/news/08_News_Releases/111308.html) [hereinafter DOI News Release].

27. KLAMATH HYDROELECTRIC SETTLEMENT AGREEMENT (Feb. 18, 2010) [hereinafter KHSa].

28. DOI News Release, *supra* note 26; see also Felicity Barringer, *Deal on Dams on Klamath Advances*, N.Y. TIMES, Jan. 16, 2008 (quoting Steve Thompson, Regional Director, U.S. Fish and Wildlife Service as stating that removing the four dams would be "one of the most amazing restoration projects in the world").

29. KLAMATH BASIN RESTORATION AGREEMENT FOR THE SUSTAINABILITY OF PUBLIC AND TRUST RESOURCES AND AFFECTED COMMUNITIES (Feb. 18, 2010) [hereinafter KBRA]. PacifiCorp was not required to and did not sign the KBRA. See KHSa, *supra* note 27, § 2.2.

30. See Barringer, *supra* note 28.

31. See *infra* Part V.A.

32. See *infra* Part V.B, D.

33. See *infra* Part V.C.

34. See *infra* Part V.E.

35. See *infra* Part V.G; see Janine Robben, *Navigating Water Law in Oregon*, 69 Or. St. B. Bull. 17, 20. "Some of the organizations that have been concerned about Klamath Basin water for years, most notably some environmental groups, did not sign off on it, which may result in collateral attacks." *Id.*

2020.

This article examines the background, content, and viability of the KHSa. Section II provides the legal context of the KHSa, explaining FERC relicensing, sections 4(e) and 18 of the FPA, and 401 of the CWA. Section III describes the KHP and PacifiCorp's initial attempt to relicense the project. Section IV analyzes each element of the KHSa, highlighting threats to the goal of dam removal by 2020 and evaluating the public policy of the agreement. Section V concludes that, despite the agreement's flaws, unified support for the KHSa represents the best hope for Klamath River salmon.

## II. Agency Pluralism and Recognizing the Total Cost of a Dam

In 1920, Congress passed the Federal Water Power Act ("FWPA") to streamline the federal process for regulating private hydroelectric projects.<sup>36</sup> The FWPA established the Federal Power Commission ("FPC") to license the construction and operation of private hydroelectric projects.<sup>37</sup> At the time, Congress was not concerned about the environmental consequences of dam construction, and the FWPA did not contain adequate protection for fish and wildlife.<sup>38</sup> For nearly sixty years, FPC licensed new dams with little to no consideration of the facilities' effects on the environment.<sup>39</sup>

Today, FERC is the federal agency responsible for licensing private hydroelectric projects, and the FPA governs the FERC licensing process.<sup>40</sup> The FPA grants FERC exclusive jurisdiction to issue licenses for hydroelectric projects, but authorizes state and federal agencies to recommend license conditions designed to protect natural resources.<sup>41</sup> The courts have found some of these conditioning authorities to be mandatory, thereby requiring

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36. The Federal Water Power Act is now named the Federal Power Act and is codified at 16 U.S.C. §§ 791–825 (2006). Max J. Mizejewski, *FERC's Abdication of Jurisdiction over Hydroelectric Dams on Nonnavigable Rivers: A Potential Setback for Comprehensive Stream Management*, 27 ENVTL. L. 741, 746 (1997); see *Escondido Mutual Water Company v. La Jolla Band of Mission Indians*, 466 U.S. 765, 773 (1984). "In 1920, Congress passed the Federal Water Power Act in order to eliminate the inefficiency and confusion caused by the 'piecemeal, restrictive, negative approach' to licensing prevailing under prior law." *Id.* (quoting *First Iowa Hydro-Electric Cooperative v. FPC*, 328 U.S. 152, 180 (1946)).

37. See Blumm & Nadol, *supra* note 15, at 86; 41 Stat. 1063, 1063 (current version at 16 U.S.C. § 792 (2006)).

38. See Blumm & Nadol, *supra* note 15, at 86–87.

39. See Becker, *supra* note 12, at 821; Blumm & Nadol, *supra* note 15, at 86–87.

40. See Blumm & Nadol, *supra* note 15, at 86–87 (discussing how congressional amendments to the FWPA changed the name of FPC to FERC, and how the FPA supplemented the FWPA in 1935).

41. 16 U.S.C. §§ 797(e), 803(a)(1), 803(j), 811 (2005); see Amos, *supra* note 6, at 5 (explaining agency recommendations in the FERC licensing process).



FERC to include the conditions in its licenses.<sup>42</sup> In several recent FERC relicensing processes, these provisions have led to agreements on dam removal.<sup>43</sup> During relicensing of the KHP, federal agency prescriptions and the potential denial of state water quality certification drove the parties to plan for dam removal.<sup>44</sup>

### **A. Federal Agency Conditions and Prescriptions**

Beginning with the Supreme Court's decision in *Escondido Mutual Water Company v. La Jolla Band of Mission Indians*,<sup>45</sup> courts have interpreted sections 4(e) and 18 of the FPA to grant federal agencies mandatory conditioning authority for a FERC license.<sup>46</sup> Courts have also determined that section 10 of the FPA grants federal agencies non-mandatory conditioning authority to provide FERC with non-binding recommendations.<sup>47</sup> Part 1 of this section explains the decisions interpreting sections 4(e), 18, and 10 of the FPA. Part 2 explains the Energy Policy Act of 2005 ("EPA"),<sup>48</sup> which changed the procedures a federal agency must follow to impose a condition on a FERC license.<sup>49</sup>

#### **1. Sections 4(e), 18, and 10 of the Federal Power Act**

Section 4(e) of the FPA requires that a FERC license "shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the

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42. See *infra* Part II.A–B (discussing sections 4(e) and 18 of the FPA and section 401 of the CWA and related case law).

43. See Becker, *supra* note 12, at 814. "The FPA's provisions that require FERC to give equal consideration to fish and wildlife protection in its licensing decisions, and to accept as mandatory other resource agencies' license conditions, led directly to the successful removal of the Edwards Dam and the agreement to remove the Condit Dam." *Id.* When decommissioning appears necessary, FERC favors negotiated settlements. Fed. Energy Regulatory Comm'n, Policy Statement on Hydropower Licensing Settlements 1, 116 FERC ¶ 61,270 (Sept. 21, 2006). But ultimately, FERC asserts that it has authority to reject an application for relicense and to unilaterally order the decommissioning of a project. Fed. Energy Regulatory Comm'n, Policy Statement, Project Decommissioning at Relicensing 2–5, 69 FERC ¶ 61,336 (Dec. 14, 1994). FERC has acted under this authority only once, unilaterally ordering the decommissioning of the Edwards Dam, but because this case resulted in a negotiated settlement, the policy has never been subject to challenge in court.

44. See *infra* Part III.

45. 466 U.S. 765 (1984).

46. See *infra* Part II.A.1.

47. *Id.*

48. Energy Policy Act of 2005, Pub. L. No. 109-58, § 241, 119 Stat. 594 (2005).

49. See *infra* Part II.A.2.

adequate protection and utilization of such reservation.”<sup>50</sup> The term “reservations” includes national forests managed by the Secretary of Agriculture and various lands managed by the Secretary of the Interior.<sup>51</sup> FERC’s authority to reject 4(e) conditions was at issue in *Escondido Mutual Water Co. v. La Jolla Band of Mission Indians*.<sup>52</sup> *Escondido* involved an application for a FERC relicense of a diversion dam on the San Luis Rey River in California.<sup>53</sup> Under section 4(e), the Secretary of the Interior prescribed twelve conditions on the license to ensure water for the Indian Reservations, protect water quality, and restore fish habitat.<sup>54</sup> FERC rejected the Secretary’s conditions and refused to include them in the license, and the Department of the Interior, the La Jolla Band, and the licensee all sued.<sup>55</sup> In the first major blow to FERC’s exclusive authority to condition licenses, the Supreme Court held that the plain language of section 4(e) required FERC to accept the conditions.<sup>56</sup> *Escondido* changed the institutional relationship between the Department of Interior and FERC and established a significant precedent that would be applied to other hydropower license conditioning authorities over the next two decades.<sup>57</sup>

Section 18 of the FPA provides that FERC “shall require the construction, maintenance, and operation by a licensee at its own expense . . . such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce. . . .”<sup>58</sup> In *American Rivers v. FERC*

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50. 16 U.S.C. § 797(e).

51. “The term ‘reservations,’ as used in the FPA, includes certain lands and facilities under the jurisdiction of the U.S. Forest Service within Agriculture, and various components of Interior (namely, FWS, the National Park Service, the Bureau of Land Management, the Bureau of Reclamation, or the Bureau of Indian Affairs).” Resource Agency Procedures for Conditions and Prescriptions in Hydropower Licenses, 70 Fed. Reg. 69,804, 69,806 (Nov. 17, 2005).

52. 466 U.S. 765 (1984). For a complete discussion of *Escondido*, see Blumm & Nadol, *supra* note 15, at 90–96.

53. 466 U.S. at 768. The dam was located on the La Jolla Indian Reservation and diverted water into a canal that ran through the La Jolla, Rincon, and San Pasqual Indian Reservations. *Id.*

54. See generally *Escondido Mut. Water Co. v. FERC*, 692 F.2d 1223 (9th Cir. 1982), rev’d in part & aff’d in part sub nom., *Escondito Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765 (1984).

55. *Id.* at 1229.

56. *Escondido*, 466 U.S. at 772; see Blumm & Nadol, *supra* note 15, at 95 (describing FERC’s pre-*Escondido* licensing authority as “almost unlimited”).

57. See Blumm & Nadol, *supra* note 15, at 96 (discussing the importance of *Escondido* to the later rulings in *PUD No. 1 of Jefferson County v. Washington Department of Ecology* 511 U.S. 700 (1994) and *American Rivers v. FERC*, 129 F.3d 99 (2d Cir. 1997)). Both cases and their importance to KHSa negotiations are discussed *infra* Parts II.A.2, II.B.2.

58. 16 U.S.C. § 811. The term “fishway” has itself been subject to some controversy. After FERC promulgated narrow definitions for the term in 1991 and

(*American Rivers II*),<sup>59</sup> federal agencies made multiple prescriptions under section 18 for the relicensing of the Leaburg-Walterville Hydroelectric Project on the McKenzie River in Oregon.<sup>60</sup> In response, FERC adopted the conditions which involved fish ladders and fish screens, but determined that many of the other section 18 conditions did not constitute “fishway prescriptions,” and therefore did not include them in the license.<sup>61</sup> Citing *Escondido*, the Ninth Circuit<sup>62</sup> held that FERC “may not modify, reject, or reclassify any prescriptions submitted by the Secretaries under color of section 18.”<sup>63</sup> *American Rivers II* was a significant precedent for the KHP relicensing because it required FERC to include in any new license the section 18 prescriptions developed by the NMFS and FWS.<sup>64</sup>

*American Rivers II* also addressed federal agency conditioning authority under sections 10 (j) and 10(a) of the FPA. Section 10(j) requires FERC to include conditions in all hydropower licenses that “adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)” and that these conditions be based on recommendations by the NMFS and FWS.<sup>65</sup> To reject agency recommendations under section 10(j), FERC must make findings that the agencies’ recommended conditions are not consistent with the FPA, and that FERC’s conditions will protect fish and wildlife.<sup>66</sup> Section 10(a)(2)(B) states that FERC “shall consider” state and federal agency recommendations

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then again in 1992, Congress vacated FERC’s definitions and provided that any future FERC definition of the term would require concurrence by the Secretary of the Interior and the Secretary of Commerce. Pub. L. No. 102-486, § 1701(b), 106 Stat. 3008. Congress clarified that fishways shall provide for “the safe and timely upstream and downstream passage of fish [and] shall be limited to physical structures, facilities, or devices necessary to maintain all life stages of such fish, and project operations and measures related to such structures, facilities, or devices which are necessary to ensure the effectiveness of such structures, facilities, or devices for such fish.” *Id.*; see Blumm & Nadol, *supra* note 15, at 109 (discussing the evolution of the term “fishway”).

59. *American Rivers v. FERC*, 201 F.3d 1186 (9th Cir. 2000). To distinguish this case from an earlier opinion in *American Rivers v. FERC*, 129 F.3d 99 (2d Cir. 1997) (discussed *infra* Part II.B.3), the Ninth Circuit opinion will be referred to as *American Rivers II*, and the Second Circuit case will be referred to as *American Rivers I*. See Blumm and Nadol, *supra* note 15, at 75n.17 and accompanying text.

60. *American Rivers*, 201 F.3d at 1192.

61. *Id.*

62. Under the judicial review provisions of the FPA, challenges to FERC rulings are not reviewed by the district court; rather they are brought in the circuit court.

63. 201 F.3d at 1210.

64. These prescriptions are discussed *infra* Part III.C.1. For a discussion of the significance of *American Rivers II* see Blumm & Nadol, *supra* note 15, at 108–17.

65. 16 U.S.C. § 803(j)(1).

66. *Id.* § 803(j)(2)(A)–(b); see Blumm & Nadol, *supra* note 15, at 110–11.

for fish and wildlife, but does not require FERC to make findings to reject the recommendations.<sup>67</sup> In *American Rivers II*, state and federal agencies submitted fifty-six recommendations for the Leaburg-Waltermville license under section 10(j).<sup>68</sup> FERC reclassified twenty-one of the section 10(j) recommendations as section 10(a) recommendations, did not include the twenty-one recommendations in the license, and did not make findings justifying the rejections.<sup>69</sup> The Ninth Circuit distinguished recommendations under section 10(j) from mandatory conditions under section 4(e).<sup>70</sup> The court determined that Congress granted FERC some discretion in how to implement section 10(j), and that it could, after giving them “due regard,” lawfully reject the recommendations.<sup>71</sup>

## 2. The 2005 Federal Power Act Amendments

The hydropower industry opposed the mandatory conditioning authority affirmed in *Escondido* and *American Rivers II* because the interpretations enabled agencies to require expensive conditions and prescriptions based on agency science.<sup>72</sup> Beginning in the mid-1980s, the industry lobbied Congress to amend the FPA to make it more difficult for federal agencies to impose mandatory conditions and prescriptions on FERC licenses under sections 4(e) and 18.<sup>73</sup> The industry’s efforts appeared to pay off when Congress passed, and President George W. Bush signed, the Energy Policy Act of 2005.<sup>74</sup> In the EPA, Congress imposed cumbersome new procedures controlling federal agency conditioning authority.<sup>75</sup>

Under the EPA, if a federal agency imposes a section 4(e) condition or a section 18 prescription on a license, the applicant, or any party to the licensing proceeding, may respond by proposing an alternative condition or prescription.<sup>76</sup> The federal agency that imposed the condition must then accept the alternative condition if it will result in cost savings “while still “provid[ing] for the adequate protection and utilization of the reservation” (for section 4(e) conditions), or is “no less protective than the fishway

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67. 16 U.S.C. § 803(a)(2)(B).

68. *American Rivers*, 201 F.3d at 1192.

69. *Id.*

70. *Id.* at 1202.

71. *Id.*

72. See Spain, *supra* note 6, at 106; see Becker, *supra* note 12, at 850; see Amos, *supra* note 6, at 10.

73. See Becker, *supra* note 12, at 850–52, n.258 and accompanying text, n.259 and accompanying text (describing the industry’s lobbying efforts, two failed bills, and the various versions of the 2005 Energy Policy Act).

74. Energy Policy Act of 2005, Pub. L. No. 109-58, § 241, 119 Stat. 594 (2005).

75. See Becker, *supra* note 12, at 850–52.

76. Energy Policy Act of 2005, U.S.C. § 241(c).

initially prescribed" (for section 18 prescriptions).<sup>77</sup> If the federal agency determines the alternative conditions will not adequately protect the resource or will be less protective and the agency continues to support its original conditions, FERC can direct the conflict to its Dispute Resolution Service ("DSR").<sup>78</sup> The DSR will then issue a "non-binding advisory" which the federal agency "may accept" unless it determines the recommendation will not "adequately protect" the resource.<sup>79</sup> Under both the alternative conditioning provision and the DSR provision of the EPA, it is the federal agency that proposed the original condition - not FERC - that determines whether an alternative condition would provide adequate protection. Therefore, the alternative conditioning and DSR provisions of the EPA did not overturn the mandatory agency conditioning authority affirmed in *Escondido* and *American Rivers II*, although the EPA did add more steps to the process of prescribing mandatory conditions.

In addition to the two processes described above, the EPA also allows for "an agency trial-type hearing" to be conducted by a FERC Administrative Law Judge.<sup>80</sup> The trial-type hearing may be requested by the license applicant or any party to the licensing proceeding that disputes an issue of material fact related to the section 4(e) conditions or section 18 prescriptions.<sup>81</sup> The hearings must provide for discovery and allow industry the opportunity to cross-examine agency scientists.<sup>82</sup> Immediately following the passage of the EPA, the Departments of Interior, Agriculture, and Commerce promulgated interim final rules<sup>83</sup> that extended the right to propose alternative conditions and to request a trial-type hearing to parties in all future licensing proceedings, as well as to parties in pending proceedings.<sup>84</sup>

A coalition of conservation groups brought a facial challenge to the interim final rules in 2006,<sup>85</sup> alleging two violations of the Administrative

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77. *Id.* See Becker, *supra* note 12, at 851.

78. Energy Policy Act of 2005 § 241(c). FERC may refer the dispute if it determines the condition "would be inconsistent with the purposes of this part, or other applicable law." *Id.*

79. *Id.*

80. *Id.* at § 241(a), (b).

81. *Id.*

82. Resource Agency Procedures for Conditions and Prescriptions in Hydropower Licenses, 70 Fed. Reg. 69,804, 69,807 (Nov. 17, 2005). See Becker, *supra* note 12, at 855.

83. 70 Fed. Reg. 69,804 (to be codified at 7 C.F.R. pt. 1 (Dep't of Agriculture), 43 C.F.R. pt. 45 (Dep't of the Interior), and 50 C.F.R. pt. 221 (Dep't of Commerce)).

84. *Id.* at 69,807.

85. *Am. Rivers v. U.S. Dep't of the Interior*, No. C05-2086P, 2006 WL 2841929 (D. Wash. 2006); see Amos, *supra* note 6, at 20-23 (discussing the case). The plaintiffs included American Rivers, Friends of the River, Idaho Rivers United, American

Procedure Act ("APA").<sup>86</sup> The plaintiffs alleged that the three agencies failed to provide notice and comment in violation of sections 553(b) and (c) of the APA, and that the interim final rules had an impermissible retroactive effect because the rules extended new rights to parties in pending proceedings.<sup>87</sup> On the first claim, the reviewing court determined that the rules were exempt from the APA's notice and comment requirements because the rules were procedural and interpretative, not substantive.<sup>88</sup> On the second claim, the court determined that applying the EPA to pending license proceedings was not impermissibly retroactive.<sup>89</sup> The court's holding made the new procedural rights of the EPA applicable to pending FERC license proceedings, including the KHP relicensing proceeding. As discussed below, the KHP became the first full proceedings under the EPA.<sup>90</sup>

### **B. Section 401 of the Clean Water Act and the State's Role In Hydropower Licensing**

The CWA requires states to set "comprehensive water quality

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Whitewater, Trout Unlimited, and Upper Chattahoochee Riverkeeper Fund, Inc. Trial Pleading at 1, *Am. Rivers*, 2006 WL 1176934.

86. Administrative Procedure Act, 5 U.S.C. §§ 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5362, 7521 (2006).

87. *Am. Rivers*, No. C05-2086P, at 1.

88. *Id.* at 8. Plaintiffs conceded that some of the interim final rules were procedural or interpretative, but argued that five of the rules were substantive and therefore were subject to the APA's notice and comment requirements. *Id.* at 4. One of the five rules that plaintiffs argued was substantive was the "the applicability provision." *Id.* at 5. The applicability provision states that "the rules are effective immediately and apply to pending proceedings in which a final license has not been issued." *Id.* Plaintiffs argued that the EPA did not clearly provide that the new rights be made available to pending license proceedings. *See id.* The court sided with the defendants, determining that because Congress made the EPA "effective immediately" and because the EPA would be "applicable to all license applicants" that the applicability provision of the interim final rules was interpretative. *Id.*

89. *Am. Rivers*, No. C05-2086P, at 15. The court applied the two-part test established in *Landgraf v. USI Film Products*, 511 U.S. 244 (1994). The *Landgraf* test first asks "whether Congress has expressly prescribed the statute's proper reach." *Id.* at 280. If the answer to this question is "yes," retroactive application of the statute is permissible. *Id.* When Congress has not expressly prescribed the reach of the statute, the court must determine "whether it would impair rights a party possessed when he acted, increase a party's liability for past conduct, or impose new duties with respect to transactions already completed." *Id.* Under the first part of the *Landgraf* test, the court determined that Congress did not expressly provide whether the rights of the EPA would apply to pending license proceedings. *Id.* at 9. Under step two of the *Landgraf* test, the court concluded that the EPA did not have an impermissible retroactive effect on finalized conditions and prescriptions, new rights, intervention decisions, settlements, or the ability to comment. *Id.* at 9–14.

90. *See Amos, supra* note 6, at 26–29. The KHP relicensing process is discussed *infra* Part III.C.

standards” for interstate waters.<sup>91</sup> States create water quality standards by designating uses for specific water bodies and establishing water quality criteria to protect those uses.<sup>92</sup> The CWA requires states to enforce their water quality standards, and one tool for doing so is provided in section 401 of the CWA.<sup>93</sup> Section 401 requires that a state must first issue a water quality certification before the federal government may approve an activity that could result in a discharge to intrastate navigable waters.<sup>94</sup> In its water quality certification, the state must include any conditions on the license needed to ensure that the project will meet effluent limitations, applicable state laws, and “other limitations” needed to comply with water quality standards.<sup>95</sup> If a state believes that a project will not meet effluent limitations, state laws, or other limitations even with license conditions, the state must deny certification, and the project cannot go forward.<sup>96</sup>

In *S.D. Warren Co. v. Maine Board of Environmental Protection*,<sup>97</sup> the Supreme Court addressed the question of whether discharges from dams trigger the need for state water quality certification.<sup>98</sup> Warren, a paper company, sought the renewal of its FERC license to operate five dams on the Presumpscot River in Maine.<sup>99</sup> The state of Maine issued a 401 certification for the license on the condition that Warren would operate the dams to provide for a minimum stream flow in the river below the dam and to allow passage for migratory fish and eels.<sup>100</sup> FERC included Maine’s conditions in its license, and Warren sued, claiming the operation of its dams would not result in “discharges” under the CWA, and therefore relicensing did not trigger the need for state water quality certification.<sup>101</sup> Writing for a unanimous Court, Justice Scalia explained that the term “discharge” as used in section 401 was broader than the phrase “discharge of a pollutant” used elsewhere in the CWA.<sup>102</sup> In lieu of a statutory definition of the term, Justice Scalia held that the plain meaning of “discharge” included the water leaving a dam.<sup>103</sup> The Supreme Court’s interpretation of “discharge” in *Warren* is significant

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91. *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700, 700 (1994) (citing § 303 of the CWA).

92. *Id.* at 707 (citing § 309 of the CWA).

93. 33 U.S.C. § 1341 (1977).

94. *Id.*

95. 33 U.S.C. § 1319(d).

96. *See id.*

97. 547 U.S. 370 (2006).

98. *Id.* at 387.

99. *Id.* at 373.

100. *Id.* at 375.

101. *Id.*

102. *Id.*

103. *Id.* at 387.

because it ensures that states have authority to protect water quality during any FERC hydroelectric licensing that includes discharges from a dam.<sup>104</sup>

Once the requirement for state water quality certification is triggered, states must ensure that “the activity” to be licensed will not violate water quality standards.<sup>105</sup> In *PUD No. 1 of Jefferson County v. Washington Department of Ecology*,<sup>106</sup> the Supreme Court addressed a state’s authority to condition aspects of a project beyond the discharge.<sup>107</sup> *PUD No. 1* involved a proposal by the city of Tacoma and a utility district to build a hydroelectric project on the Dosewallips River in Washington.<sup>108</sup> Fearing the project would not leave enough water in the river to support salmon and trout populations (designated uses of the Dosewallips)<sup>109</sup> the state of Washington included in its water quality certification the condition that flows in the bypass reach be about 30 percent greater than originally proposed.<sup>110</sup> The Supreme Court upheld the minimum stream flow requirements, explaining that the term “water quality standards” as used in section 401 could include designated uses *or* the criteria to protect those uses.<sup>111</sup> The ruling is significant because it broadened the scope of a state’s conditioning authority over FERC hydropower licenses to protect either designated uses or numeric water quality criteria, as well as to impose minimum stream flows on a FERC license.<sup>112</sup>

One question remaining after the Supreme Court’s holding in *PUD No. 1* was whether FERC retained ultimate authority to reject a state’s 401 conditions and issue a hydropower license without them.<sup>113</sup> The Second

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104. See *id.*

105. 40 C.F.R. 121.2(1)(3) (2008).

106. 51 U.S. 700 (1994).

107. *Id.* at 709.

108. *Id.* The project called for diverting about 75 percent of the water into a tunnel that would run alongside the river through a series of turbines. Only 25 percent of Dosewallips’ water would be released into the bypass reach. *Id.*

109. *Id.* at 714.

110. *Id.* at 709.

111. *Id.* at 714. The court rejected the city’s argument that the state could only condition aspects of the project that would threaten *both* a designated use *and* water quality criteria. *Id.* at 714–15. 33 U.S.C. § 1313(d)(4)(B) (2000). The court went on to hold that the antidegradation policy of the CWA was also sufficient justification for conditioning the minimum stream flows. *PUD No. 1*, 511 U.S. at 718–719. The antidegradation policy of the CWA is designed to “fill the gaps” that may exist under the traditional water quality standards by establishing a three tiered classification for water bodies. See Craig N. Johnston, et al., *Legal Protection of the Environment* 191 n.7 (2007).

112. See Blumm & Nadol, *supra* note 15, at 99; see Christopher Ryciewicz & Dan Mensher, *Growing State Authority under the Clean Water Act*, 22 NAT. RESOURCES & ENV’T 57, 57 (2007).

113. See Blumm & Nadol, *supra* note 15, at 100.



Circuit addressed this question in *American Rivers, Inc. v. FERC* (*American Rivers I*).<sup>114</sup> In *American Rivers I*, three companies sought licenses for several hydroelectric projects in the state of Vermont.<sup>115</sup> Vermont granted certification under eighteen conditions,<sup>116</sup> but FERC, reversing a longstanding policy to leave review of 401 conditions to state courts,<sup>117</sup> unilaterally found three of the eighteen conditions to be beyond the scope of the state's authority under section 401 and issued the Tunbridge Mill Corporation a license without the three conditions.<sup>118</sup>

The Second Circuit reviewed the CWA issues *de novo*, explaining that FERC's interpretation of section 401 was not entitled to deference because the Environmental Protection Agency, not FERC, administered the CWA.<sup>119</sup> The court then held that the plain meaning of section 401(d) was "unequivocal" and provided "little room for FERC to argue" that it had authority to reject a state's conditions.<sup>120</sup> The court cited *Escondido*,<sup>121</sup> finding the case a "strikingly analogous factual and legal scenario."<sup>122</sup> *Escondido*, the court explained, determined that FERC lacked authority to reject conditions offered by another governmental agency in the face of clear statutory

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114. 129 F.3d 99 (2d Cir. 1997).

115. *Id.* at 102. The court focused its review on the license granted to the Tunbridge Mill Corporation ("Tunbridge") for a small hydroelectric facility on the First Fork of the White River. Tunbridge had properly applied to Vermont's Agency of Natural Resources ("VANR") for 401 certification and, after several discussions, Tunbridge and VANR agreed on conditions to be included in the certification. *Id.*

116. *Id.*

117. *See id.*

118. *Id.* The state of Vermont objected, but FERC denied rehearing, prompting Vermont to appeal to the Second Circuit. *Id.* at 103.

119. *Id.* at 107 (citing *Chevron USA, Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), 33 U.S.C. § 1251(d) (1972) ("Except as otherwise expressly provided in this chapter, the Administrator of the Environmental Protection Agency . . . shall administer this chapter."), *West v. Bowen*, 879 F.2d 1122 (1989) (agencies interpreting a statute administered by another agency are not entitled to deference), *Oregon Natural Desert Assoc. v. Thomas*, 940 F.Supp. 1534, (D.Or. 1996) (U.S. Forest Service is not entitled to deference interpreting section 401 because EPA alone administers the CWA).

120. *American Rivers*, 129 F.3d at 107 (quoting 33 U.S.C. § 1341(a) as providing that "any certification provided under this section...shall become a condition of any Federal license or permit subject to the provisions of this section."). The court narrowly interpreted the holding in *Keating v. FERC*, 97 F.2d 616 (D.C.Cir. 1991), a case that affirmed FERC's authority to review state 401 conditions. *Keating* involved the licensing of a dam in California. The Second Circuit held that *Keating* simply involved FERC's authority to ensure that it had obtained a valid certificate from the state, and that this inquiry extended only to whether or not the state had followed the proper procedure required for issuing certification. 129 F.3d at 109.

121. *See supra* Part II.A.1 (discussing *Escondido*).

122. *American Rivers*, 129 F.3d at 109–11.

language requiring the conditions be adopted.<sup>123</sup> *American Rivers I* is significant because it affirmed that the state's role in shaping the outcome of FERC licensing proceedings is mandatory and on par with federal agency conditioning authorities under the FPA.<sup>124</sup> Taken together, the decisions in *Warren*, PUD No. 1, and *American Rivers I* solidify a broad authority for states to protect water quality during FERC hydropower licensing by imposing mandatory license conditions or by denying project certification.

### III. Efficient Breach: Attempting to Relicense the Klamath Hydroelectric Project

PacifiCorp is a private utility company that provides electricity to 1.7 million customers in Oregon, Washington, Idaho, Wyoming, Utah, and California.<sup>125</sup> From 2005 to 2008, PacifiCorp netted an average yearly profit of \$377 million.<sup>126</sup> The Klamath Hydroelectric Project ("KHP") makes up only a small fraction of PacifiCorp's energy portfolio, accounting for less than 2 percent of the company's total generating capacity.<sup>127</sup> This Part describes the KHP, explains the environmental problems caused by the Klamath dams, and analyzes how PacifiCorp's attempt to relicense the KHP led to the Klamath Hydroelectric Settlement Agreement.

#### A. The Effect of the Klamath Hydroelectric Project on Fish and Water Quality

PacifiCorp's license for the KHP includes eight dams and power generating structures located in Oregon and California.<sup>128</sup> The eight dams and structures are: 1) East Side, 2) West Side, 3) Keno, 4) J.C. Boyle, 5) Copco No. 1, 6) Copco No. 2, 7) Fall Creek, and 8) Iron Gate.<sup>129</sup> The upstream boundary of the KHP is marked by Link River Dam, which is owned by the Bureau of Reclamation ("BOR") and regulates the water level of Upper Klamath Lake at the input canal for BOR's Klamath Irrigation Project,

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123. *Id.*

124. *See* Blumm & Nadol, *supra* note 15, at 106 (explaining the significance of *American Rivers I*).

125. Company Facts, *supra* note 10.

126. United States Securities and Exchange Commission, Form 10-K, PacifiCorp, at 41 (2008), available at <http://www.pacificorp.com/File/File88145.pdf>.

127. FERC FEIS, *supra* note 1, § 1.2. "Capacity," often measured in megawatts ("MW"), is a term used to describe the amount of electricity that can be produced by a generator under certain conditions. PacifiCorp's total capacity refers to the amount of electricity that can be generated by all of the company's power plants. *See* Company Facts, *supra* note 10.

128. FERC FEIS, *supra* note 1, § 2.1.1. For a map of the Klamath Basin see *infra* table 1.

129. *Id.*

located near the town of Klamath Falls, Oregon.<sup>130</sup> PacifiCorp diverts water from Link River Dam to two power generating structures: the East Side and West Side developments, both located off the mainstem of the Klamath River.<sup>131</sup> Below Link River Dam on the mainstem of the Klamath River is Keno Dam<sup>132</sup> and the four major hydroelectric dams: J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate.<sup>133</sup> In total, the KHP has an installed capacity of 169 MW.<sup>134</sup> The actual output of the KHP, however, has averaged only about half that - 81.94 MW - over the last fifty-year FERC license.<sup>135</sup> For

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130. *Id.* at § 2.1.1.1. Because PacifiCorp does not own the federal Link River Dam, it is not part of the KHP. However, until 2006, PacifiCorp operated Link River Dam under a separate agreement with BOR, which allowed PacifiCorp some control over releases from the dam in exchange for selling discounted power to BOR's Klamath Irrigation Project irrigators. *Id.* BOR finished construction on a new fish ladder on Link River Dam in 2005 that should enable passage of suckers and salmonids into Upper Klamath Lake from Link River. *Id.* The agreement between BOR and PacifiCorp expired in 2006. Currently PacifiCorp operates Link River Dam under an annual contract renewable at the parties' discretion. *Id.* "In recent years, however, PacifiCorp claims this operational flexibility has not been fully realized, as BOR has specified releases from Link River dam in an attempt to comply with Biological Opinions (BiOps) relating to two species of sucker in Upper Klamath Lake and coho salmon in the lower Klamath River, all of which are listed as either endangered or threatened under the Endangered Species Act." *Id.* For a discussion of the impacts of providing a "select group" of Klamath Irrigation Project irrigators with highly subsidized power, see Spain, *supra* note 6, at 113-17.

131. FERC FEIS, *supra* note 1, § 2.1.1.1. The authorized generating capacity for the East Side and West Side powerhouses are 3.188 MW and 0.6 MW, respectively. *Id.* A MW is a unit of power. One MW is a million watts per second.

132. Keno Dam is the first KHP dam on the mainstem of the Klamath River, located about twenty-two river miles below Link River Dam. *Id.* § 2.1.1.2. Keno Dam is relatively small, only twenty-five feet tall, and does not contain any hydroelectric facilities. *Id.* Keno Dam is significant, however, because it creates the Keno Reservoir, a twenty-two mile impoundment on the Klamath River that provides water to 41 percent of the lands irrigated by the Klamath Irrigation Project and the Lower Klamath Lake National Wildlife Refuge. *Id.* Article 55 of PacifiCorp's license for the KHP requires PacifiCorp to manage the Keno Dam under an agreement with BOR that ensures certain water levels in the Keno Reservoir for BOR's Klamath Irrigation Project irrigators. *Id.*

133. J.C. Boyle Dam is located ten river miles below Keno Dam and has a total authorized capacity of 97.98 MW. *Id.* § 2.1.1.3. Below J.C. Boyle Dam are Copco No. 1 and Copco No. 2 Dams, with an authorized capacity of 20 MW and 27.0 MW, respectively. *Id.* §§ 2.1.1.4, 2.1.1.5. The final dam located on the mainstem of the Klamath River is Iron Gate Dam, with an authorized capacity of 18 MW. *Id.* The eighth facility of the KHP is Fall Creek Dam, a small dam located on Fall Creek, a tributary to the Iron Gate Reservoir. *Id.* § 2.1.1.6.

134. *Id.*

135. The KHP produces 716,820 megawatt-hours ("MWh"). A MWh is a unit of energy. One MWh represents a million watts ("MW") of power applied over the period of an hour. The 716,820 megawatt-hours ("MWh") of energy produced by the KHP is

comparison, the average capacity for one of PacifiCorp's coal, geothermal, or natural gas plants is 571 MW,<sup>136</sup> and the capacity of the Grand Coulee Dam on the Columbia River is 6795 MW.<sup>137</sup> The KHP accounts for only 1.8 percent of PacifiCorp's total generating capacity.<sup>138</sup>

For an adult salmon returning from the Pacific Ocean to spawn in the Klamath River or one of its tributaries, Iron Gate Dam, located 196.8 miles from the mouth of the Klamath River, represents an abrupt barrier. Iron Gate Dam provides no fish passage, eliminating 570 stream-miles of anadromous fish habitat above the dam.<sup>139</sup> Above Iron Gate Dam, Copco No. 1 and No. 2 dams also provide no fish passage.<sup>140</sup> J. C. Boyle Dam is equipped with structures that provide downstream fish passage through a single, 24-inch diameter fish screen bypass pipe that releases twenty cubic feet per second ("cfs") of flow below the dam, and upstream fish passage by a 569-foot long pool and weir fishway.<sup>141</sup> These facilities, however, are used only by resident fish, and the NMFS has determined the facilities are inadequate for anadromous fish migration.<sup>142</sup> Keno Dam provides limited fish passage for some species, but the passage does not meet agency criteria for federally listed Lost River and shortnosed suckers.<sup>143</sup> The 570 river miles of historic salmon habitat blocked by the KHP and Link River Dam reduce anadromous fish habitat in the Klamath River Basin by 75 percent.<sup>144</sup>

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equivalent to 81.94 MW of power. *Id.* at xxxiii; *see Spain, supra* note 6, at 101 n.207 and accompanying text.

136. PacifiCorp, Thermal Generation, <http://www.pacificorp.com/Navigation/Navigation591.html> (last visited Feb. 28, 2009); *see Spain, supra* note 6, at 101 n.208 and accompanying text.

137. Bonneville Power Administration, 2007 BPA Facts, *available at* [http://www.bpa.gov/corporate/about\\_BPA/Facts/FactDocs/BPA\\_Facts\\_2007.pdf](http://www.bpa.gov/corporate/about_BPA/Facts/FactDocs/BPA_Facts_2007.pdf) (last visited Feb. 28, 2009).

138. FERC FEIS, *supra* note 1, § 1.2.

139. C.W. HUNTINGTON, ESTIMATES OF ANADROMOUS FISH RUNS ABOVE THE SITE OF IRON GATE DAM 4 (2006) *available at* [http://www.klamathbasincrisis.org/settlement/documents/Huntington\(2006\)-FishEstimatesUpdate.pdf](http://www.klamathbasincrisis.org/settlement/documents/Huntington(2006)-FishEstimatesUpdate.pdf); *see also* FERC FEIS, *supra* note 1, § 2.1.1.7; *see also Spain, supra* note 6, at 102–3.

140. FERC FEIS, *supra* note 1, §§ 2.1.1.4, 2.1.1.5.

141. *Id.*

142. BUREAU OF RECLAMATION, 2002 BIOLOGICAL ASSESSMENT 27 (2002).

143. FERC FEIS, *supra* note 1, § 5.2.8. "At Keno Dam the existing fishway does not meet current criteria to accomplish lamprey passage because corners and ladder steps are not rounded. Resident lamprey ammocoetes (juveniles) already rear within tributaries within the Project." U.S. DEPARTMENT OF THE INTERIOR AND NATIONAL MARINE FISHERIES SERVICE MODIFIED PRESCRIPTIONS FOR FISHWAYS AND ALTERNATIVES ANALYSIS PURSUANT TO SECTION 18 AND SECTION 33 OF THE FEDERAL POWER ACT FOR THE KLAMATH HYDROELECTRIC PROJECT 25 (2007) (internal citation omitted).

144. FERC Docket No. P-2082-027 *available at* <http://elibrary.ferc.gov/idmws/search/fercgensearch.asp> (select "Field Date," enter "From" 12/4/2006, enter "To"

In addition to the loss of habitat due to blocked passage, the Klamath River dams contribute to several serious downstream water quality issues that severely limit salmon populations.<sup>145</sup> High water temperatures, low dissolved-oxygen levels, high levels of ammonia, toxic algae blooms, and high nutrient concentrations are all exacerbated by, if not directly caused by the dams and their reservoirs.<sup>146</sup> Of particular concern is one species of blue-green algae known as *Microcystis aeruginosa*.<sup>147</sup> *Microcystis* creates microcystin, a potent toxin that causes serious liver damage in fish, wildlife, and humans.<sup>148</sup> Iron Gate, Copco, and Keno dams create reservoirs with warm, stagnant water, ideal breeding conditions for *Microcystis*. As a result of the artificial conditions, water samples taken from Iron Gate and Copco reservoirs have shown some of the highest levels of *Microcystis* in the world.<sup>149</sup> When water is released from behind the dams, the toxin washes into the Klamath River where it bioaccumulates in fish, creating serious health risks for ecosystems, fishermen, and consumers.<sup>150</sup> Dam removal would drain the reservoirs where *Microcystis* breeds and dramatically reduce, if not eliminate, the threat to fish and people.<sup>151</sup>

## **B. The Klamath Hydroelectric Project Relicensing Process**

In 2004, PacifiCorp applied to FERC for a relicense to operate the

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12/4/2006, enter "Docket Number" P-2082, select submit, and scroll down to "Comments of INSTITUTE FOR FISHERIES RESOURCES, Pacific Coast Federation of Fishermen's Associations ("PCFFA") and others on DEIS under P-2082" [hereinafter Fishermen's Comments].

145. See Spain, *supra* note 6, at 110–13.

146. FERC FEIS § 3.3.2.1.1., 3-95.

147. *Id.* § 3.3.2.1.2., 3-111.

148. See Spain, *supra* note 6 at 111 (citing Maria G. Antoniou et al., Cyanotoxins: New Generation of Water Contaminants, 131 J. ENVTL. ENGINEERING 1239, 1239 (2005); S. Pichardo et al., Toxic Effects Produced by *Microcystins* From a Natural Cyanobacterial Bloom and a *Microcystis aeruginosa* Isolated Strain on the Fish Cell Lines RTG-2 and PLHC-1, 51 Archives of Env'tl. Contamination & Toxicology 86, 86-87 (2006)).

149. See Spain, *supra* note 6 at 112 (citing V.F. Magalhaes et al., *Microcystins* (Cyanobacteria Hepatotoxins) Bioaccumulation in Fish and Crustaceans from Sepetiba Bay (Brasil, R.J.), 42 Toxicon 289, 289-90 (2003)). Water samples taken in the summer of 2006 from the Iron Gate and Copco reservoirs showed levels of *Microcystis aeruginosa* that "exceeded the World Health Organization's moderate-risk-exposure standard by more than 3900 times" and that were "among the highest recorded in the world." Spain, *supra* note 5 at 111–12 (citing Memorandum from Jacob Kann of Aquatic Ecosystem Sciences on Cyanobacteria Results from July 13th and 27th, 2006, at 1 (Aug. 8, 2006); Memorandum from Jacob Kann of Aquatic Ecosystem Sciences on Cyanobacteria Results from August 7th-8th, 2006, at 1 (Aug. 21, 2006)).

150. *Id.*

151. See *id.*

KHP.<sup>152</sup> After two years of study and consultation, in 2006, the FWS and the NMFS filed comments, including recommended terms and conditions for the KHP.<sup>153</sup> Included in the comments were preliminary fishway prescriptions under section 18 of the FPA<sup>154</sup> and recommended conditions under both sections 10(j) and 10(a) of the FPA.<sup>155</sup> Although the recommended conditions under sections 10(j) and 10(a) were not binding on FERC,<sup>156</sup> the recommendations were significant because they called for extensive mitigation and monitoring of anadromous fish outside of the project boundary (under section 10(j))<sup>157</sup> and removal of the four lower dams (under section 10(a)).<sup>158</sup> Three days after NMFS's filing, the Bureau of Land Management ("BLM") and BOR (Interior agencies) each filed section 4(e) preliminary conditions that required PacifiCorp to construct streamflow monitoring stations throughout the KHP and to guarantee levels of releases from J.C. Boyle Dam.<sup>159</sup>

Moving quickly to take advantage of the decision in *American Rivers v. U.S. Department of the Interior*, which extended the rights of the EPA to both applicants and parties in pending license proceedings,<sup>160</sup> PacifiCorp filed a request for hearings on fourteen disputed issues of material fact regarding both the section 4(e) conditions and the section 18 prescriptions.<sup>161</sup> Simultaneously, PacifiCorp filed its own alternative prescriptions and

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152. See *In re Klamath Hydroelectric Project*, No. 2006-NMFS-0001 at 3 (NOAA Fisheries Sept. 27, 2006), available at [http://elibrary.fercwww.fws.gov/idmws/common/opennat.asp?fileID=11146718yreka/P2082/20060927/2Klamath\\_DNO\\_Final.pdf](http://elibrary.fercwww.fws.gov/idmws/common/opennat.asp?fileID=11146718yreka/P2082/20060927/2Klamath_DNO_Final.pdf) [hereinafter *In Re Klamath*]. FERC Responded by issuing a Notice of Application Ready for Environmental Analysis, including a Request for Preliminary Prescriptions and Conditions. See *id.*

153. NAT'L MARINE FISHERIES SERV. & U.S. FISH & WILDLIFE SERV., PRELIMINARY FISH PRESCRIPTIONS C-5 (2006) [hereinafter COMMERCE PRELIMINARY FISH PRESCRIPTIONS], available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=10985726>.

154. *Id.* Section 18 prescriptions are mandatory. See *infra* Part II.A.1.

155. COMMERCE PRELIMINARY FISH PRESCRIPTIONS, *supra* note 153.

156. See *supra* Part II.A.1; see *American Rivers II*, 201 F.3d at 1208-10 (holding that recommended conditions under 10(j) are non-binding on FERC); see Blumm & Nadol, *supra* note 15 at 114-6 (explaining interpretations of section 10 conditions).

157. COMMERCE PRELIMINARY FISH PRESCRIPTIONS, *supra* note 161, app. B.

158. *Id.* app. C.

159. FWS filed their section 18 preliminary prescriptions along with BLM and BOR's section 4(e) preliminary conditions. FWS's section 18 preliminary prescriptions were identical to NMFS section 18 preliminary prescriptions because the two agencies consulted with each other on the content of the prescriptions. See *In Re Klamath*, at 4, n.2.

160. See *supra* Part II.A.3.

161. See Letter from Anne K. Dailey, Troutman Sanders LLP, to Magalie Roman Salas, Sec'y, Fed. Energy Regulatory Comm'n (Apr. 28, 2006), available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11016462>. PacifiCorp filed less than two months after the ruling in *American Rivers v. U.S. Department of the Interior*.

conditions which called for more studies into anadromous fish habitat above the dams and a plan to trap fish below the project, transport the fish around the dams in trucks, and release the fish in the river above the dams ("trap and haul").<sup>162</sup> PacifiCorp's alternative conditions and prescriptions would not require construction of fishways, and therefore would be significantly cheaper to implement.<sup>163</sup>

After the first full hearing conducted under the 2005 EPA, Administrative Law Judge Parlen McKenna ruled in favor of the agencies on twelve of the fourteen issues of fact.<sup>164</sup> Most significantly, the agencies succeeded in showing that anadromous fish had historically lived above Iron Gate Dam, and that allowing salmon access to the river above Iron Gate Dam would benefit the depleted species.<sup>165</sup> At the end of the hearing, the agencies submitted modified section 4(e) conditions and section 18 prescriptions that were substantially similar to the preliminary conditions.<sup>166</sup> The NMFS also reaffirmed the recommended condition to remove the four lower dams under section 10.<sup>167</sup>

### **1. The 'Real' Value of the KHP after Modified Prescriptions and Conditions**

The NMFS and FWS jointly filed modified prescriptions for the KHP in January 2007.<sup>168</sup> After acknowledging that recommendations to remove the dams under section 10 of the EPA were non-binding on FERC,<sup>169</sup> the agencies acted under section 18, imposing binding prescriptions for the KHP<sup>170</sup> as well as binding fishway prescriptions for the four major dams.<sup>171</sup>

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162. FERC FEIS, *supra* note 1, § 2.3.1.3. *Id.*

163. *See id.*

164. *In re Klamath*, No. 2006-NMFS-0001 at 6 (NOAA Fisheries Sept. 27, 2006).

165. *Id.*

166. FERC FEIS, *supra* note, 1, § 2.3.1.3, 2-27. "The modified prescriptions include[d] revisions to downstream fishway prescriptions at Copco No. 1 tailraces, spillway prescriptions at all project developments, and bypass/attraction flow changes." *Id.*

167. *See* Letter from Rodney R. McInnis, NMFS, to Magalie Roman Salas, Sec'y, Fed. Energy Regulatory Comm'n (Jan. 26, 2007).

168. *Id.*

169. *See supra* Part II.A.1. (discussing section 10 of the FPA).

170. FERC FEIS, *supra* note 1, § 2.3.1.3, 2-27-29. The general prescriptions called for PacifiCorp to, among other things: design and construct all fish screens and fishways in a manner consistent with NMFS guidelines; keep all fishways in proper order, clear of trash, sediment, logs, debris, and other material that would hinder passage; develop post-construction monitoring and evaluation plans to assess the effectiveness of all prescribed structures; and design each upstream fish passage facility to pass migrants throughout a designed streamflow range. *Id.*

171. *Id.* § 2.3.1.3, 2-27.

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The fishway prescriptions included new fish ladders at Iron Gate, Copco No. 1, and Copco No. 2; redesigned fish ladders at J.C. Boyle; new fish screens and bypasses at all dams; tailrace barriers at Copco No. 1, Copco No. 2, and J.C. Boyle; and spillway modifications for all four dams.<sup>172</sup> The Interior agencies filed modified conditions under section 4(e) of the FPA in January, 2007,<sup>173</sup> requiring PacifiCorp to, among other things, release minimum flows from J.C. Boyle dam during specific times throughout the year, maintain a minimum level in the Keno Reservoir and establish new streamflow monitoring stations at various sites throughout the KHP.<sup>174</sup>

In its Final Environmental Impact Statement, FERC weighed the costs of the section 4(e) conditions and the section 18 prescriptions against the benefits of energy generation at the KHP.<sup>175</sup> Under the renewed license, the KHP would generate an average of only 533,879 MWh of electricity annually - down twenty-five percent from the annual average of 716,820 MWh.<sup>176</sup> FERC projected the annual value of the power generated by the KHP after imposing the conditions and prescriptions to be about \$25 million.<sup>177</sup> After complying with the mandatory conditions and prescriptions, FERC estimated the total annual cost of operating the KHP to be over \$46 million, thus projecting the net annual loss to PacifiCorp of operating the KHP under the new conditions and prescriptions to be more than \$20 million.<sup>178</sup> After mitigating its environmental impacts, the KHP would no longer be economically viable. The FPA's mandatory federal conditioning authorities thus forced the parties to plan for dam removal.

## **2. The Certifications That Never Were**

PacifiCorp applied to the Oregon Department of Environmental Quality ("DEQ") and the California Water Resources Control Board ("WRCB") for state Section 401(c) certification in March 2006.<sup>179</sup> Under the CWA, DEQ and WRCB must deny 401(c) certification if the agencies determine the

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172. *Id.* § 2.3.1.3, tbl. 2-2.

173. *See id.* § 2.3.1.4, 2-32.

174. *Id.* § 2.3.1.4, tbls. 2-3, 2-4.

175. *Id.* § 4.4, 4-4.

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.* § 2.3.1.1, 2-27. Because the KHP straddles the Oregon-California border, the laws of both states applied to PacifiCorp's attempt to relicense the project. One result of the dams being in two states was that PacifiCorp needed to obtain 401(c) certification from two states, requiring PacifiCorp to navigate two dissimilar state administrative programs. One difference between Oregon and California's 401(c) programs is that 401(c) certification in California triggers the need for the WRCB to analyze environmental impacts under CEQA. Cal. Pub. Res. Code § 21000 et seq.



project will not meet effluent limitations, state laws, or other limitations.<sup>180</sup> A state has one year to respond to an application for water quality certification, and if a state fails to respond within one year of receiving the application, the state waives the certification requirement.<sup>181</sup>

One month before the deadline for state action on the application, neither Oregon nor California had certified the license.<sup>182</sup> Anticipating a denial of certification, PacifiCorp withdrew its applications from both states on February 28, 2007, and resubmitted the applications that same day in order to push back the deadline for certification one year.<sup>183</sup> California and Oregon made clear that the applications remained inadequate, and that without additional data, each state would deny certification.<sup>184</sup> Because state water quality certification is mandatory,<sup>185</sup> and because Oregon and California took such strong stances on ensuring water quality, the Clean Water Act played a significant role in encouraging the parties to reach the AIP. Even if PacifiCorp backed out of the KHSA and agreed to construct fish passage,<sup>186</sup> the dams would remain in place and water quality would not improve.<sup>187</sup> Therefore, the Clean Water Act will continue to provide a critical incentive for the parties to ultimately agree on dam removal.

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180. See *infra* Part II.B. Oregon DEQ and California WRCB list the Klamath as water-quality limited under section 303(d) of the CWA for several pollutants in both Oregon and California. Or. Department of Environmental Quality, *Water Quality Assessment Database*, <http://www.deq.state.or.us/wq/assessment/rpt0406/search.asp> (last visited Jan. 30, 2009) (choose “Klamath River” as water body and “All Parameters” as parameter); Cal. Environmental Protection Agency, Board Approved 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments 7–13 (2006), available at [http://www.swrcb.ca.gov/water\\_issues/programs/tmdl/docs/303dlists2006/swrcb/r1\\_final303dlist.pdf](http://www.swrcb.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/swrcb/r1_final303dlist.pdf).

181. 33 U.S.C. § 1341(a)(1) (1977).

182. FERC FEIS, *supra* note 1, § 2.3.1.1, 2-27.

183. See Letter from Elizabeth Lawson, Cal. Water Res. Control Eng’r, State Water Res. Control Bd., to Cory Scott, Project Manager, PacifiCorp Energy (Mar. 20, 2007), available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11316001>; see Spain, *supra* note 6, at 112 n.261 and accompanying text.

184. Letter from Elizabeth Lawson, Water Res. Control Eng’r, Cal. Water Res. Control Bd., to Cory Scott, Project Manager, PacifiCorp Energy 11 (Feb. 26, 2007), available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11289671>; see Spain, *supra* note 5, at 112 n.262 and accompanying text.

185. See *infra* Part II.B.

186. AIP, *supra* note 24, § III.

187. See *supra* Part III.B.

#### IV. Evaluating the Klamath Hydroelectric Settlement Agreement

On November 13, 2008, the states and PacifiCorp signed an “Agreement in Principal” addressing removal of the four major dams on the Klamath River.<sup>188</sup> Negotiated and signed by the Bush administration, the AIP outlined a nonbinding framework for the decommissioning, transfer of ownership, and removal of Iron Gate, Copco 1, Copco 2, and J.C. Boyle dams by 2020.<sup>189</sup> In addition to planning for dam removal, the AIP embraced the proposed Klamath Basin Restoration Agreement (proposed KBRA),<sup>190</sup> an earlier agreement among Klamath stakeholders on water reallocation and fisheries restoration.<sup>191</sup>

The AIP called for a final agreement on dam removal by June 30, 2009.<sup>192</sup> On that date, after only six months in office, the Obama administration announced that an agreement on dam removal was “within reach” and extended the deadline to September 2009.<sup>193</sup> On September 30, 2009, the parties to the AIP and forty-two stakeholder groups announced - but did not sign - the public review draft of the Klamath Hydroelectric Settlement Agreement (“KHSA”).<sup>194</sup> The KHSA retained the basic structure and timeline of the AIP and required that the KHSA be signed concurrently with the KBRA.<sup>195</sup> After another four months of negotiations, on January 7, 2010, the parties released updated public review drafts of both agreements for the parties to consider and sign by February 2010.<sup>196</sup> Finally, on February

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188. DOI News Release, *supra* note 26.

189. AIP, *supra* note 25 at 2, 7. The AIP contemplated several dates for dam removal, the latest being 2025. *Id.*

190. *Id.* § IV.

191. See KBRA, *supra* note 29.

192. AIP, *supra* note 25, § II.B.i.

193. News Release, U.S. Department of the Interior, Salazar: Klamath Basin Agreement “Within Reach” (July 30<sup>th</sup>, 2009), available at [http://www.doi.gov/news/pressreleases/2009\\_06\\_30\\_releaseC.cfm](http://www.doi.gov/news/pressreleases/2009_06_30_releaseC.cfm).

194. KHSA, *supra* note 27. News Release, U.S. Department of the Interior, Secretary Salazar Announces Draft Agreement on Klamath Dam Removal Proposal (September 30, 2009), available at [http://www.doi.gov/news/pressreleases/2009\\_09\\_30\\_release.cfm](http://www.doi.gov/news/pressreleases/2009_09_30_release.cfm).

195. Compare AIP, *supra* note 25 with KHSA, *supra* note 27; KHSA, *supra* note 27 § 2.2.

196. See Colin Miner, *Reaching Consensus on the Klamath*, N.Y. TIMES, Jan. 11, 2010, available at <http://greeninc.blogs.nytimes.com/2010/01/11/reaching-consensus-on-the-klamath/?scp=1&sq=Klamath&st=cse>; SUMMARY, KLAMATH HYDROELECTRIC SETTLEMENT AGREEMENT I, Jan. 7, 2010. On January 19, the Klamath Tribe became the first party to sign the two agreements. Associated Press, *Klamath Tribes OK basin restoration agreement*, MONTEREY COUNTY HERALD (Jan. 20, 2010), available at [http://www.montereyherald.com/state/ci\\_14233039](http://www.montereyherald.com/state/ci_14233039). On January 28, the Karuk Tribal Council voted unanimously to support the two agreements. Press Release, Karuk

18, 2010, over fifty parties signed the two agreements in the Oregon Capitol Rotunda in Salem.<sup>197</sup>

With 427 FERC hydroelectric licenses expiring in the next 20 years,<sup>198</sup> the KHSA could represent an influential model for resolving future relicensing disputes. Beyond the private hydroelectric project relicensing process, Klamath dam removal, if successful, could open the door for removing even larger federally owned dams.<sup>199</sup> This Section analyzes the major components of the KHSA, assessing the viability of dam removal by 2020 and evaluates the public policy underlying the agreement.

### **A. The Klamath Basin Restoration Agreement and Combined Federal Legislation**

About a year before the parties announced the AIP, on January 15, 2008, the Klamath Settlement Group ("KSG") announced the proposed KBRA on water allocation and fisheries restoration in the Klamath Basin.<sup>200</sup> The KSG included three of the parties to the AIP - the states of Oregon and California and the federal government - but did not include PacifiCorp.<sup>201</sup>

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Tribe, Karuk Tribe Formally Approves Klamath Restoration Agreements (Jan. 28, 2010), *available at* <http://www.indybay.org/newsitems/2010/01/29/18636586.php>.

197. See KHSA, *supra* note 27; KBRA, *supra* note 29; News Release, U.S. Department of the Interior, Secretary Salazar, Governors Kulongoski and Schwarzenegger Announce Agreement on Klamath River Basin Restoration (Feb. 18, 2010), *available at* [http://www.doi.gov/news/pressreleases/2010\\_02\\_18\\_release.cfm](http://www.doi.gov/news/pressreleases/2010_02_18_release.cfm). At the signing Governor Schwarzenegger said, "It's time to say hasta la vista to the dams on the Klamath River." See KRDV, Historic Klamath Basin water agreements signed in Salem, <http://kdrv.com/page/163064> (Feb. 18, 2010).

198. FERC, COMPLETE LIST OF ISSUED LICENSES Column G (2009), *available at*, <http://www.ferc.gov/industries/hydropower/gen-info/licensing/app-new.asp>.

199. See Daniel Jack Chasan, *How taking out dams splits environmental groups*, CROSSCUT (Nov. 3, 2009), *available at* <http://www.oregonwild.org/about/press-room/press-clips/how-taking-out-dams-splits-environmental-groups> (explaining how some environmental groups hope the KHSA might lead to removing four dams on the lower Snake River) [hereinafter Chasan]. For a critique of the most recent proposal for mitigating the impact of the Snake River dams on salmon see Michael Blumm, *Obama disappoints when it comes to salmon*, HIGH COUNTRY NEWS (Oct. 13, 2009), *available at* <http://www.hcn.org/wotr/obama-disappoints-when-it-comes-to-salmon>.

200. PROPOSED KLAMATH RIVER BASIN RESTORATION AGREEMENT FOR THE SUSTAINABILITY OF PUBLIC AND TRUST RESOURCES AND AFFECTED COMMUNITIES (2008), <http://www.edsheets.com/Klamathdocs.html> [hereinafter PROPOSED KBRA]. Press Release, Klamath Settlement Group, Klamath Settlement Group Releases Proposed Klamath Basin Restoration Agreement for Public Review (Jan. 15, 2008), *available at* <http://www.edsheets.com/Klamathdocs.html>. [hereinafter KBRA Press Release]. 26 parties comprised the KSG and negotiated the terms of the KBRA over a two-year period. *Id.*

201. In addition to representatives from the U.S. Departments of Agriculture, Commerce, and the Interior and Oregon and California's natural resource

The proposed KBRA attempted to reallocate and reduce water diverted for upstream irrigation while improving in stream flow for anadromous fish.<sup>202</sup> Anticipating an agreement like the AIP, the proposed KBRA called for a separate “Hydropower Agreement” with PacifiCorp to remove the four major Klamath River dams,<sup>203</sup> and required that the proposed KBRA could only be finalized in conjunction with a final agreement on dam removal.<sup>204</sup> Ten months after the KSG announced the proposed KBRA, the parties to the AIP embraced the KBRA, agreeing that the KBRA and the final hydropower agreement would be “indivisible parts of a unified approach to resolving Klamath Basin issues in the broad public interest.”<sup>205</sup> In the KHSA, the parties went a step further and explicitly required that all parties except PacifiCorp must execute the KHSA and KBRA concurrently.<sup>206</sup> On February 18, 2010, over fifty parties signed the final KBRA, a sprawling, 172-page agreement.<sup>207</sup>

The goals of the KBRA are to 1) restore and sustain fish populations that can support robust ocean and river harvest opportunities; 2) establish reliable water and power for agriculture, communities, and National Wildlife Refuges; and 3) promote the sustainability of all Klamath Basin communities, including mitigating the effects of dam removal.<sup>208</sup> The KBRA calls for a series of programs and assurances to be coordinated by the Klamath Basin Coordinating Council (Council), a novel basin-wide governance structure.<sup>209</sup> Under the KBRA, the Council would oversee nearly \$1 billion in spending over the first ten years of implementation, with ninety percent of the funds going to anadromous fisheries restoration and water

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departments, the KSG included representatives from four tribes, three counties, environmental groups, agricultural and fishing interests, and landowners from inside and outside the Klamath Irrigation Project. *Id.*

202. *Id.*

203. See Proposed KBRA, *supra* note 200, at Part II; SUMMARY, PROPOSED KLAMATH BASIN RESTORATION AGREEMENT 1 (Jan. 15, 2008), <http://www.edsheets.com/Klamathdocs.html> [hereinafter PROPOSED KBRA SUMMARY].

204. The proposed KBRA called for a final KBRA to be executed concurrently with the Hydropower Agreement. PROPOSED KBRA, *supra* note 200, §§ 1.5, 8.4.1, 39.

205. AIP, *supra* note 25, § IV.

206. KHSA, *supra* note 27, § 2.2.

207. KBRA, *supra* note 29. Including the table of contents and appendices, the KBRA is 369-pages long.

208. SUMMARY, KLAMATH BASIN RESTORATION AGREEMENT 1 (Jan. 7, 2010) [hereinafter KBRA SUMMARY].

209. KBRA, *supra* note 29, app. D-1. The KBRA itself makes it clear, however, that this new “governance” structure will not supersede or change any existing governmental authorities, serving more as an inter-Party coordination and planning entity intended to help implement the KBRA’s many restoration programs. *Id.* §.2.2.1.

provisions.<sup>210</sup> Of the nearly \$1 billion, 60 percent would come from funds already allocated to various programs in the Klamath Basin.<sup>211</sup> The remaining forty percent would require additional funds from the federal government, but the parties to the KBRA estimate that this \$400 million over the next ten years would be less than the average amount of federal money historically spent on federal disaster relief in the basin.<sup>212</sup> In addition to the restoration program, the KBRA calls for substantial changes to the schedules, plans, and other provisions governing how irrigation water is delivered to the Klamath Reclamation Project, upper Klamath Basin, and the National Wildlife Refuges.<sup>213</sup>

Both the KBRA and KHSa depend on federal legislation.<sup>214</sup> The KBRA calls for federal legislation to, among other things, authorize the Secretary to execute the agreement and provide or redirect \$970 million in federal appropriations over ten years.<sup>215</sup> The KHSa calls for legislation to, among other things, authorize the Secretary to designate a Dam Removal Entity (“DRE”) to take title to the dams and take them down, require FERC to issue PacifiCorp one-year temporary licenses for the KHP until transfer to the DRE, authorize transfer of Keno Dam from PacifiCorp to Interior, and immunize PacifiCorp from liability associated with dam removal after the DRE takes title to the dams.<sup>216</sup> Because legislation for both agreements will be offered to Congress as one bill, dam removal cannot proceed independently of the significant federal appropriations required by the KBRA.<sup>217</sup>

Although a broad coalition of stakeholders signed the KBRA, the agreement divided environmental groups.<sup>218</sup> In March 2008, the Northcoast

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210. *Id.* app. C-2; KBRA SUMMARY, *supra* note 208, at 10.

211. PROPOSED KBRA SUMMARY, *supra* note 200, at 10.

212. For example, in 2006, federal disaster relief for the Klamath fisheries collapse totaled \$60.4 million. See Glen Spain, *No River Left Behind, Why Every Salmon River Is Important*, <http://www.pcffa.org/fn-jun08.htm> (last visited April 22, 2009).

213. KBRA, *supra* note 29, §§ 14–20. The KBRA also outlined a process to develop Habitat Conservation Plans (“HCPs”) to assist non-federal parties in complying with the Endangered Species Act (“ESA”). KBRA, *supra* note 29, § 22. See also Ullman, *supra* note 7, at 8 (stating that the ESA provisions of the KBRA should shift the regulatory framework in the Klamath Basin “from Section 7 and occasional Biological Opinions, to more predictable Habitat Conservation Plans”).

214. KHSa, *supra* note 27, app. E.

215. *Id.* KBRA, *supra* note 29, app. C-2.

216. KHSa, *supra* note 27, app. E; see *infra* Parts V.E. (discussing the DRE and immunity for PacifiCorp), V.D. (discussing Keno Dam).

217. KHSa, *supra* note 27, § 2.1.1. The states are responsible for funding dam removal. See *infra* Part IV.C.

218. See Janine Robben, *Navigating Water Law in Oregon*, 69 OR. ST. B. BULL. 17, 20. “Some of the organizations that have been concerned about Klamath Basin water for years, most notably some environmental groups, did not sign off on it, which may

Environmental Center ("NEC")<sup>219</sup> - a longtime champion of Klamath River dam removal—announced it did not support the KBRA.<sup>220</sup> Relying on two commissioned studies,<sup>221</sup> NEC concluded that the KBRA did not guarantee adequate stream flows for fish.<sup>222</sup> Supporters of the KBRA - including other environmental organizations and fishermen's groups<sup>223</sup> - disagree, pointing

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result in collateral attacks." *Id.* See Chasan, *supra* note 209. Early opposition also came from landowners and politicians in Siskiyou County, California, who objected to provisions allowing tribal and agency biologists to design the fisheries restoration program and argued that the council structure did not include a representative population from the mid-Klamath Basin. Marcia Armstrong, Siskiyou County Supervisor, *Klamath River Dams – Agreement in Principal* ("AIP"), Siskiyou County Supervisors Weekly Column (Nov. 25, 2008), available at <http://www.klamathbasincrisis.org/MarciaArmstrong/KlamathDamsAIP112508.htm>.

219. The Northcoast Environmental Center is a non-profit organization based in Arcata, California and was one of the twenty-six parties that announced the proposed KBRA. PROPOSED KBRA, *supra* note 200, § 1. NEC's mission is "to promote understanding of the relations between people and the biosphere and to conserve, protect and celebrate terrestrial, aquatic and marine ecosystems of northern California and southern Oregon." NEC, Our Mission, [http://yournec.org/modules.php?op=modload&name=PageEd&file=index&page\\_id=360](http://yournec.org/modules.php?op=modload&name=PageEd&file=index&page_id=360) (last visited April 22, 2009).

220. News Release, Northcoast Environmental Center, NEC Rejects Klamath Agreement (March 3, 2008) available at <http://humboldtherald.wordpress.com/2008/03/03/nec-rejects-klamath-agreement-news-release/> [hereinafter NEC News Release].

221. GREG KAMMAN, INDEPENDENT MODEL REVIEW FOR KLAMATH SETTLEMENT NEGOTIATIONS, KLAMATH INDEPENDENT REVIEW PROJECT ("KIRP") (Nov. 2007); BILL TRUSH, COMMENTARY ON THE KLAMATH RIVER SETTLEMENT AGREEMENT (Nov. 2007).

222. See NEC News Release, *supra* note 220. The studies also concluded that the KBRA provided quantitative guarantees of water for agriculture users, but included no guarantees for stream flows for fish during dry years or during drier months of average years. *Id.* NEC also quoted Thomas Hardy, author of *Hydrology, Ecology and the Fishes of the Klamath River Basin*, as stating that under the KBRA, agriculture will be "taking too much water from the system" in dry years. See *id.* Models project the river will go well below 1,000 cubic feet per second (cfs) during drier parts of the year under the KBRA. *Id.* "Flows that resulted in the 2002 fish kill, which killed nearly 70,000 adult Chinook salmon, were between 600 and 700 cfs." *Id.* See also KLAMATH CONSERVATION PARTNERS, OUTLINE OF OBJECTIONS TO THE KLAMATH BASIN RESTORATION AND HYDROELECTRIC SETTLEMENT AGREEMENTS 1 (Jan. 10, 2010) (claiming that "[t]he water balance, guaranteeing diversion of 330,000 acre-feet for irrigators, has no scientific basis and will, in 40 percent of water years, leave too little water in the Klamath River to meet the current Coho Salmon BiOp flow requirements. There are no guaranteed flows for fish."). However, the author of one of those NEC commissioned studies, Dr. Kamman, and Dr. Hardy as well, have since changed their views and both now support the KBRA flows as adequate for salmon recovery when coupled with dam removal. See <http://www.klamathriverrestoration.org/index.php/issues/fisheries.html>.

223. American Rivers, California Trout, Institute for Fisheries Resources, Northern California/Nevada Council Federation of Fly Fishers, Pacific Coast Federation of Fishermen's Associations, Salmon River Restoration Council, and Trout Unlimited all signed the KBRA. KBRA, *supra* note 29, at 2.

to KBRA programs to limit water diversions,<sup>224</sup> retire water uses,<sup>225</sup> and authorize the Secretary to make real-time water management decisions to benefit fish.<sup>226</sup> These provisions notwithstanding, in December 2009, NEC and a small coalition of environmental groups withdrew their support for the KHSA citing, among other things, the linkage between the KHSA and KBRA.<sup>227</sup> In addition to the lack of assurances on stream flows, the Klamath Conservation Partners ("KCP") argued that combining controversial legislation and appropriations called for by the KBRA with legislation needed for dam removal could derail the KHSA.<sup>228</sup> As an alternative, the KCP put forward alternative "clean and clear" dam removal legislation that did not include ties to the KBRA.<sup>229</sup>

The KBRA-KHSA linkage highlights a major policy concern for future dam removal projects. On the one hand, the KCP make a strong argument that negotiations, agreements, and legislation needed for dam removal should be separated from issues related to fisheries restoration (which is expensive) and water allocation (which is extremely contentious). Why complicate and jeopardize a plan for dam removal with additional parties and controversies? On the other hand, dam removal provides a unique opportunity for comprehensive river restoration because the key governmental parties are each at the negotiating table and focused on the issue. Further, to achieve the most environmental benefit as soon as possible, dam removal should be followed by habitat restoration.<sup>230</sup> Why not then coordinate the two processes to ensure the most environmental benefit in the shortest amount of time? Also, including stakeholders early in the process may reduce the risk of collateral attacks down the road.<sup>231</sup>

Lessons from the Klamath will not help to fully answer these questions for a decade, but the existence and content of the two agreements offer a starting point. Notwithstanding objections from some environmental

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224. KBRA, *supra* note 29, § 20.2.2.

225. *Id.* § 20.2.3.

226. *Id.* § 20.3.3.

227. KLAMATH CONSERVATION PARTNERS, GUIDANCE STATEMENT 1, (Dec. 15, 2009) available at <http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/klamath-conservation-partners>.

228. *Id.* at 3.

229. THE KLAMATH FACILITIES REMOVAL ACT 2010: AN ALTERNATIVE TO THE KHSA (Dec. 15, 2009) available at <http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/klamath-conservation-partners>.

230. See WILLIAM R. LOWRY, DAM POLITICS: RESTORING AMERICA'S RIVERS 61–2 (2003) (describing the benefits of dam removal and habitat restoration). For time-lapse animation sequences depicting restoration of the Klamath River see American Rivers, Envisioning a Restored Klamath River, <http://www.americanrivers.org/our-work/restoring-rivers/dams/projects/envisioning-a-restored-klamath.html> (2010).

231. See *infra* Part V.G.

groups, the KBRA and KHSa achieved broad support from diverse stakeholder groups.<sup>232</sup> This consensus alone offers some credence for the comprehensive river restoration approach. However, compromises in the KBRA and KHSa drove some parties to reject both agreements, leaving these stakeholders in a position to challenge permits, authorizations, and legislation needed for dam removal.<sup>233</sup> More troubling, controversy surrounding the KBRA, including its price tag, looms as a major threat to needed dam removal legislation and jeopardizes dam removal altogether. In the end, the efficacy of the KBRA-KHSa package and the comprehensive river restoration model will be measured by the success or failure of the ultimate goal of the KHSa - dam removal by 2020.<sup>234</sup> As explained below, success is far from a sure thing.

### **B. How and When to Decide: Federal Studies and Determination by 2012**

The KHSa is not an agreement to remove the four Klamath dams.<sup>235</sup> Instead, the agreement calls for further studies<sup>236</sup> and environmental review to inform a determination by the Secretary of the Interior (Secretary) on whether or not to proceed with dam removal.<sup>237</sup> Several conditions must be met before the Secretary can reach his determination: 1) Congress must adopt legislation;<sup>238</sup> 2) the Secretary and PacifiCorp must agree on transfer of Keno Dam;<sup>239</sup> 3) the states must authorize funding for dam removal and the parties must agree on a plan for excess costs;<sup>240</sup> and 4) the Secretary must identify a suitable dam removal entity ("DRE").<sup>241</sup> Further, the

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232. See KBRA, *supra* note 29, at 2.

233. See *infra* Part V.G.

234. KHSa, *supra* note 27, § 7.3.1.

235. See *id.* § 3.1.

236. In April 2009, Interior Secretary Ken Salazar approved \$4 million in federal stimulus funds to contract the studies called for by the AIP. See The Associated Press, *Stimulus Money Pays for Klamath Dam Removal Study*, THE OREGONIAN, April 19, 2009, available at [http://www.oregonlive.com/environment/index.ssf/2009/04/stimulus\\_money\\_pays\\_for\\_klamat.html](http://www.oregonlive.com/environment/index.ssf/2009/04/stimulus_money_pays_for_klamat.html); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 2009. The approval was significant because it allowed BOR to contract the studies without waiting for congressional approval—as designed under the AIP. Secretary Salazar's use of the stimulus funds therefore increases the chances that the studies will be complete in time for him to make the determination on dam removal by March 31, 2012. *Id.* KHSa, *supra* note 27, § 3.2.5.A.

237. KHSa, *supra* note 27, § 3.2.1.

238. *Id.* § 3.3.4(A); see *supra* Part IV.A. (explaining the challenges of combining legislation called for by the KBRA with legislation needed for dam removal).

239. KHSa, *supra* note 27, § 3.3.4(B); see *infra* Part IV.D. (discussing Keno Dam).

240. KHSa, *supra* note 27, § 3.3.4(C), (D); see *infra* Part IV.C. (discussing costs).

241. KHSa, *supra* note 27, § 3.3.4(E); see *infra* part IV.E. (explaining the DRE).

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Secretary may not decide to proceed with dam removal unless he determines that, “in his judgment,” dam removal will benefit salmon and be in the public interest.

The Secretary is to use his “best efforts” to make a determination on dam removal by March 31, 2012.<sup>242</sup> If one of the several conditions<sup>243</sup> is not met by the deadline the Secretary cannot make his determination. In such an event the parties must meet and consider modifications to the KHSA, potentially delaying dam removal.<sup>244</sup> If all the conditions have been met, and the Secretary determines to proceed with dam removal, both Oregon and California have a right to veto dam removal if, “in its discretion and independent judgment,” a state believes “significant impacts” cannot be avoided or that the costs of dam removal will exceed the budget.<sup>245</sup>

Delaying and conditioning the final determination on dam removal was highly controversial.<sup>246</sup> Strong advocates for dam removal decided to oppose the KHSA, arguing that delaying a final determination on dam removal until 2012 created a two-year window for PacifiCorp and other parties to derail the KHSA.<sup>247</sup> Further, if the Secretary determines not to proceed with dam removal, opponents to the KHSA warn that PacifiCorp may return to the FERC relicensing process with greater leverage to keep the dams and seek other means to recover the costs of mandatory conditions.<sup>248</sup> Moreover, because the Secretary only has control over two of the four preconditions for his determination<sup>249</sup> the ultimate fate of the KHSA will likely rest with Congress,<sup>250</sup> the California public utility commissions, and California voters.<sup>251</sup>

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242. *Id.* § 3.3.4. The KHSA retained the same deadline for a Secretarial determination on dam removal as the AIP. AIP, *supra* note 25, § III.

243. *See infra* notes 238–242.

244. *See KHSA, supra* note 27, § 3.3.4.

245. *Id.* § 8.11.1.C.

246. *See* KLAMATH CONSERVATION PARTNERS, OUTLINE OF OBJECTIONS TO THE KBRA AND KHSA (Dec. 15, 2009), *available at* [http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/KBRA-KHSAObjections\\_11.09.pdf](http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/KBRA-KHSAObjections_11.09.pdf) (outlining 18 separate objections, three of which relate to the Secretary’s determination).

247. KLAMATH CONSERVATION PARTNERS, GUIDANCE STATEMENT 3 (Dec. 15, 2009), *available at* [http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/GuidanceonKHSA\\_12.18.09.pdf](http://www.oregonwild.org/waters/klamath/a-vision-for-the-klamath-basin/GuidanceonKHSA_12.18.09.pdf).

248. *Id.*

249. *See infra* notes 239 & 241.

250. *See infra* Part IV.A. (explaining the need for Congress to support dam removal legislation).

251. *See supra* Part IV.C. (discussing the need for state PUCs and California voters to approve dam removal funding). However, failure of the California voters to quickly approve funding is not fatal to the Secretarial Determination, which can be made nonetheless if estimates show that California’s back up funding will not be needed or provided California can give satisfactory assurances that its portion of the

### C. Paying for Removal

The KHSA funds dam removal from two sources: surcharges on PacifiCorp's customers in Oregon and California (customer contribution);<sup>252</sup> and the sale of general obligation bonds in California (bonds).<sup>253</sup> The customer contribution would raise \$200 million by 2020, and would be applied first.<sup>254</sup> California's sale of bonds would bridge the gap between the \$200 million customer contribution and the actual cost of facilities removal, if these additional funds are necessary for removal, but shall not exceed \$250 million.<sup>255</sup> The total \$450 million dollars represent the total state contribution ("state cost cap") and no party is responsible for costs beyond the state cost cap.<sup>256</sup> The KHSA does not provide for additional funds if the project goes over budget. Indeed, PacifiCorp and the federal government are expressly shielded from any costs or liability for removal.<sup>257</sup> Instead, costs over budget require the parties to meet and indentify additional funding, also potentially delaying dam removal.<sup>258</sup>

On February 17, 2009, the Oregon Senate approved a surcharge on the Oregon ratepayers of Pacific Power, the Oregon subsidiary of PacifiCorp.<sup>259</sup> The Oregon House of Representatives passed a similar bill on June 12,<sup>260</sup> and on July 14 Oregon Governor Ted Kulongowski signed Senate Bill 76 (SB 76) into law.<sup>261</sup> Under SB 76 and as structured by the KHSA,<sup>262</sup> Oregon

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funding will be available by the date of removal. See KHSA, *supra* note 27, § 3.3.4(1) and (2).

252. KHSA, *supra* note 27, § 4.1.1.

253. *Id.* § 4.1.2.

254. *Id.* § 4.1.1.C.

255. *Id.* § 4.1.2.A.

256. *Id.* §§ 2.1.4.D., 4.10.

257. *Id.* § 2.1.1.E.i. (PacifiCorp); *id.* § 4.10 (federal government).

258. *Id.* § 2.3. See *id.* § 8.11.1.D. (including failure by either PUC to approve the surcharge in a list of "potential termination events" that would trigger meet and confer procedures).

259. Oregon Senate Bill 76, available at [http://www.leg.state.or.us/bills\\_laws/](http://www.leg.state.or.us/bills_laws/); see Matt Preusch and Ted Sickinger, *Senate OKs Surcharge for Dam Removal*, OREGONIAN, Feb 18, 2009, available at <http://www.oregonlive.com/business/oregonian/index.ssf?/base/business/1234934706182210.xml&coll=7> [hereinafter Preusch & Sickinger]. SB 76 passed by an 18-12 vote. The vote was largely along party lines, with local Senator Jason Atkinson casting the lone Republic "yes" vote on SB 76. *Id.* Pacific Power is the Oregon, Washington and California subsidiary of PacifiCorp. Company Facts, *supra* note 10.

260. See Matt Preusch, *Klamath Dam Removal Bill Clears House*, THE OREGONIAN, June 13, 2009, available at [http://www.oregonlive.com/environment/index.ssf/2009/06/klamath\\_dam\\_removal\\_bill\\_passe.html](http://www.oregonlive.com/environment/index.ssf/2009/06/klamath_dam_removal_bill_passe.html).

261. Press Release, Governor Ted Kulongowski, Governor signs bill supporting the restoration of the Klamath River basin (July 14th, 2009), available at [http://governor.oregon.gov/Gov/P2009/press\\_071409.shtml](http://governor.oregon.gov/Gov/P2009/press_071409.shtml).

ratepayers would contribute the lion's share of the customer contribution (\$184 million of the \$200 million)<sup>263</sup> because far more PacifiCorp customers live in Oregon than in California.<sup>264</sup>

SB 76 requires the Public Utility Commission of Oregon to adopt the surcharge, thus securing a major portion of the initial funds needed for removal.<sup>265</sup> California's share of the customer contribution depends on the California Public Utilities Commission adopting a similar surcharge in that state to raise a maximum of \$16 million.<sup>266</sup> If either agency fails to approve the surcharge, the parties will meet to attempt to identify alternative funding, possibly delaying dam removal.<sup>267</sup>

On November 4, 2009, the California legislature passed a comprehensive water package that combined four policy bills and an \$11.14 billion bond measure.<sup>268</sup> The legislation authorized the \$250 million Klamath bond, subject to a statewide referendum, but required the Klamath bond be included in the overall water bond referendum.<sup>269</sup> Because the \$11.4 billion bond requires approval by the California voters, the success of the Klamath bond is dependent on popular support for the entire bond measure, titled The Safe, Clean, and Reliable Drinking Water Supply Act of 2010 (Water Supply Act).<sup>270</sup> A referendum for the Water Supply Act is scheduled for November 2010.<sup>271</sup>

Paying for dam removal under the KHSA could threaten the goal of dam removal by 2020 because the California PUC must approve the

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262. *Id.* § 4.1.1.D.

263. Under SB 76, the maximum amount of money generated from surcharges is capped at \$200 million. *See* Oregon Senate Bill 76, *supra* note 260. The Governor's office estimated that over a ten-year period the surcharge would be a rate increase of 1 percent for residential customers and 2 percent for an average business. If the dams are not removed the money will either be refunded to the PacifiCorp customers or "used for their benefit." *Id.*

264. *See* Preusch & Sickinger, *supra* note 270.

265. *See* Oregon Senate Bill 76, *supra* note 270.

266. KHSA, *supra* note 27, § 4.1.1.E.

267. *Id.* § 3.3. The Public Utility Commission of Oregon and the California Public Utilities Commission are independent agencies not bound by the KHSA. *Id.* § 4.8. However, the California PUC does not need any special legislative authority to levy such a surcharge, and is unlikely to object.

268. *See* Bettina Boxall, *State Legislature approves comprehensive package to overhaul water system, including an \$11-billion bond*, L.A. TIMES, Nov. 4, 2009 available at <http://latimesblogs.latimes.com/lanow/2009/11/state-legislature-approves-comprehensive-package-to-overhaul-water-system-including-an-11-billion-bo.html>.

269. *See* 2009 COMPREHENSIVE WATER PACKAGE: SPECIAL SESSION POLICY BILLS AND BOND SUMMARY, <http://gov.ca.gov/issue/water-supply> (last visited Jan. 24, 2010).

270. *See id.*

271. *Id.* But note that failure to approve the Water Supply Act may not be fatal to dam removal. *See supra* note 247.

surcharge and California voters must vote for the water bond.<sup>272</sup> It should be noted, however, that FERC, BOR, and private contractors estimated dam removal would cost between \$79.9 million and \$102.4 million - a fraction of the \$450 million state cost cap called for by the KHSa.<sup>273</sup> Even if both the California bond and the customer contribution fail, the KHSa parties may decide to proceed with dam removal, relying entirely on the \$184 million Oregon customer contribution. This lopsided budgeting could draw an outcry from residents of southern Oregon, and because Oregon has the power to veto the Secretary's determination on removal,<sup>274</sup> the parties should do everything in their power to secure California's contribution.

Even if approved, payment for dam removal under the KHSa raises serious questions for the taxpayer. Because dam removal will be paid for not by PacifiCorp, but by the citizens of southern Oregon and northern California over the next ten years, the KHSa shifts the financial burden of dam removal from a profitable corporation to its dependent customers.<sup>275</sup> Like the surcharge, the bond measure also shifts the financial burden of dam removal from PacifiCorp to the taxpayer.<sup>276</sup> But the local and regional benefits of dam removal may justify the public expenditure. If the KHSa succeeds, and the dams are removed, the citizens of southern Oregon and northern California will benefit from a restored wild and scenic river, rebounding salmon fisheries, and the fulfillment of tribal trust responsibilities. Additionally, the KHSa promises removal of all four dams, which would greatly improve water quality in both states.<sup>277</sup> On balance, many residents may indeed see the surcharge and bond measure as sound investments in the regional environment and economy.

#### D. What to Do With Keno Dam

As described above,<sup>278</sup> Keno Dam is a small, non-hydropower dam on the mainstem of the Klamath River, upstream from the four major dams. In its application to relicense the KHP, PacifiCorp proposed to eliminate Keno Dam from the KHP license, claiming that FERC did not have jurisdiction

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272. See KHSa, *supra* note 27, § 4.8.

273. FERC FEIS, *supra* note 1, at 4-6, tbl. 4-4. The estimates are in 2006 dollars. *Id.* G&G Associates produced a much lower estimate: \$37.5 million. *Id.*

274. See KHSa, *supra* note 27, § 8.11.1.C.; see *infra* Part V.B.

275. See *id.* § 4.1.1. Further, the surcharge requires the dams to remain in place for at least ten years, where they will continue to block critical fish habitat. See *id.*

276. See Sheila Kuehl, *Water Water Everywhere For: The Bond*, CALIFORNIA PROGRESS REPORT (Jan. 18, 2010) available at <http://www.californiaprogressreport.com/site/?q=node/7351>.

277. See *infra* Part III.B.II.

278. See *supra* Part III.A.

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over Keno Dam because the dam has no power generation facilities.<sup>279</sup> Environmental and fishermen's groups objected to PacifiCorp's omission of Keno Dam from its application, describing the omission as a "ruse" to avoid costly upgrades to fish passage.<sup>280</sup> The groups argued that Keno Dam blocks fish passage for salmonids and Pacific lamprey, alters sediment flows to spawning beds, raises water temperatures, concentrates nutrients from upriver, and provides a breeding ground for *Microcystis aeruginosa*.<sup>281</sup> The groups claimed that PacifiCorp benefited from Keno Dam, by using the facility to enhance peak power production at J.C. Boyle Dam.<sup>282</sup>

Under the proposed KBRA, PacifiCorp would transfer title to Keno Dam to BOR and compensate BOR for water quality issues associated with the dam.<sup>283</sup> The AIP, while also calling for transfer of Keno Dam from PacifiCorp to the federal government, did not require PacifiCorp to compensate the federal government for water quality problems.<sup>284</sup> Rather than resolve the fate of Keno Dam, the KHSA calls for a separate agreement on the transfer of the dam from PacifiCorp to the federal government by June 1, 2011.<sup>285</sup> To inform negotiations on transfer, the Secretary and other parties will study water quality, fish passage, and future operation of Keno Dam concurrently with, but independent of, the studies of the four major dams.<sup>286</sup>

The parties' failure to agree on the terms of transfer of Keno Dam prior to execution of the KHSA is unfortunate for several reasons. Most seriously, if PacifiCorp and the federal government fail to agree on transfer by March 31, 2012 (the deadline for the Secretarial determination), the Secretary cannot proceed with dam removal and the entire KHSA will be in jeopardy.<sup>287</sup>

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279. FERC FEIS, *supra* note 1, § 2.2.1. PacifiCorp claimed that because the Keno Dam has no power generation facilities, and because it does not significantly benefit power generation at the four dams downstream, FERC did not have jurisdiction over the facility. *Id.* at § 2.2.1.2.

280. *Id.* FWS and NMFS recommended upgrading fish passage at the Keno dam, at an annualized cost estimated at \$1.98 million. *Id.* at tab 5-103.

281. Fishermen's Comments, *supra* note 144, § II.

282. *Id.*

283. PROPOSED KBRA, *supra* note 200, § 8.2.1. The proposed KBRA did not specify what type of compensation PacifiCorp would be required to pay BOR, but the compensation could include restoration projects to improve the water quality of Keno Reservoir and releases from Keno Dam into the Klamath River.

284. AIP, *supra* note 25, § VII(B). PacifiCorp was not a party to the KBRA, but was a party to the AIP. *See* AIP, *supra* note 25. *Id.* The omission of the water quality compensation provision from the AIP could be an indication of PacifiCorp's leveraging during the AIP negotiations.

285. KHSA, *supra* note 27, § 7.5.2.

286. *Id.* § 7.5.1; *see infra* part V.B. (discussing the need for further study to inform the Secretary's determination on dam removal).

287. KHSA, *supra* note 27, § 7.5.2.

Also, Keno Dam requires millions of dollars in environmental upgrades.<sup>288</sup> By not requiring PacifiCorp to compensate BOR, the KHSa leaves open the possibility that PacifiCorp will pass this financial burden to the federal taxpayer. Because authorization for the Secretary to take title to Keno Dam must be included in federal legislation needed for dam removal,<sup>289</sup> federal appropriations to upgrade Keno Dam could weaken congressional support for dam removal. Finally, shifting environmental liability from a private dam owner to the federal government is bad policy and bad precedent for future dam removal projects.

### **E. The ‘DRE’ and PacifiCorp’s Transfer of Liability**

Dam removal under the KHSa revolves around a novel concept: Rather than requiring PacifiCorp to remove its dams, the KHSa directs PacifiCorp to transfer each dam to a dam removal entity (“DRE”) for removal.<sup>290</sup> After PacifiCorp transfers a dam to the DRE, federal dam removal legislation will expressly shield PacifiCorp from any liability associated with dam removal, including release of hazardous substances.<sup>291</sup> Once in possession of a dam, the DRE is responsible for accepting funds, securing permits, executing removal, and, in the event of damages during removal, defending liability claims.<sup>292</sup>

As negotiated by the Bush Administration, the DRE was required to be a non-federal entity.<sup>293</sup> Insisting on a non-federal DRE raised doubts over the parties’ ability to identify a private company willing and able to assume liability for such a large, unique project and execute removal within the fixed budget of the state cost cap. The requirements for the DRE changed under the Obama Administration. Under the KHSa, the Secretary may designate either the Department of the Interior or a non-federal entity as the DRE.<sup>294</sup> Under both scenarios, the Secretary must designate the DRE before making a determination on dam removal.<sup>295</sup> If the Secretary designates a non-federal DRE, the designation is subject to concurrence by the states.<sup>296</sup> If the Secretary designates Interior as the DRE, no concurrence by the states is

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288. Alone, upgrades to fish passage will cost about \$2 million. FERC FEIS, *supra* note 1, § 5.2.8.

289. KHSa, *supra* note 27, app. E(K).

290. *Id.* § 7.4.

291. *Id.* app. E(L).

292. *Id.* § 7.1.1. The DRE is also required to carry appropriate liability insurance. *Id.* § 7.1.1(G).

293. AIP, *supra* note 25, § VIII.

294. KHSa, *supra* note 27, § 3.3.4(E).

295. *Id.* *see supra* Part V.B.

296. KHSa, *supra* note 27, § 3.3.4(E).

required.<sup>297</sup>

Once designated, the DRE will establish a “definite plan” for paying for and executing dam removal.<sup>298</sup> Upon completion of the definite plan, the parties will have sixty days to review the plan for consistency with the KHSA.<sup>299</sup> If no party finds the definite plan inconsistent with the KHSA or if all objections are resolved, each party covenants not to sue any other party and agrees not to oppose the DRE’s attempts to secure permits for removal.<sup>300</sup> Once the DRE has secured all permits and the Secretary has reconfirmed that dam removal will cost less than the state cost cap, the DRE may commence dam removal by the target date of January 1, 2020.<sup>301</sup>

From a public policy perspective, the DRE concept is troubling. By providing for transfer of the facilities to the DRE before removal, and by calling for legislation immunizing PacifiCorp after transfer, the KHSA frees PacifiCorp from all future responsibility over the four dams before the dams are actually removed.<sup>302</sup> The dams will continue to block fish passage, the parties will not know the total cost of completing the project, and the environmental impacts of removal will still be uncertain, but PacifiCorp - which has profited off the dams for over half a century - will be immune from all issues related to the dams.<sup>303</sup> It is not surprising that the Obama Administration included the option of designating Interior as the DRE because finding a suitable non-federal DRE might prove impossible based on liability concerns. In all likelihood, Interior will be the dam removal entity.

One potential advantage of the DRE approach is that PacifiCorp would not be responsible for securing permits for removal.<sup>304</sup> Because the KHSA allows PacifiCorp to continue to sell energy generated by the Klamath dams,<sup>305</sup> PacifiCorp would have an economic incentive to delay removal by dragging out the permitting process.<sup>306</sup> By transferring the duty to secure necessary permits from PacifiCorp to the DRE, the KHSA increases the likelihood that dam removal will be approved in a timely manner.

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297. *Id.*

298. *Id.* § 7.2.

299. *Id.* § 2.1.4(C).

300. *Id.* § 2.1.4(C)(i–iii).

301. *Id.* §§ 7.2.2, 7.3.1.

302. *See id.* § 7.1.1.

303. *See id.*

304. *See id.* § 7.1.1.B.

305. *Id.* § 7.3.3.

306. *See infra* Part V.F. (discussing PacifiCorp’s difficulty securing permits to remove Condit Dam).

## F. Interim Conditions

Because removal will not take place until 2020 at the earliest,<sup>307</sup> mitigating environmental impacts of the Klamath dams over the next decade will be critical to salmon. During the interim period,<sup>308</sup> PacifiCorp will operate the KHP under annual FERC licenses<sup>309</sup> subject to interim measures<sup>310</sup> developed by PacifiCorp, FWS, and NMFS, and through Klamath River Total Maximum Daily Loads ("TMDLs"),<sup>311</sup> to be released by Oregon DEQ and California WRCB before December 31, 2010.<sup>312</sup> The interim measures require PacifiCorp to, among other things, pay \$510,000 a year to fund salmon recovery efforts, vent turbines at Iron Gate Dam to improve downstream dissolved oxygen levels, fund habitat improvement projects within the KHP and pay \$ 250,000 to fund research and pilot projects to improve water quality.<sup>313</sup> The TMDLs will regulate nutrients, sedimentation, heat, and dissolved oxygen in the Klamath River.<sup>314</sup> To comply with the TMDLs, PacifiCorp must create a TMDL Implementation Plan in conjunction with DEQ and California's North Coast Regional Water Quality Control Board ("NCRWQCB").<sup>315</sup>

In addition to mandating better water quality while the parties work toward dam removal under the KHSA, the TMDLs strengthen the KHSA in another way. As explained above,<sup>316</sup> for FERC to grant PacifiCorp a new license for the dams, the states must certify that the KHP will not contribute

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307. KHSA, *supra* note 27, § 7.3.1.

308. The KHP defines "interim period" as "the period between the Effective Date and Decommissioning." *Id.* at § 1.4.

309. *Id.* § 6.1.3.B.i.

310. *Id.* § 6.1.

311. *Id.* § 6.3. See NORTH COAST WATER RESOURCE CONTROL BOARD, STAFF REPORT FOR THE KLAMATH RIVER TMDL'S (Dec. 2009), available at [http://www.swrcb.ca.gov/northcoast/water\\_issues/programs/tmdls/klamath\\_river/091223/Chapter\\_1\\_Introduction.pdf](http://www.swrcb.ca.gov/northcoast/water_issues/programs/tmdls/klamath_river/091223/Chapter_1_Introduction.pdf). [hereinafter TMDL REPORT]. Section 303(d) of the CWA requires states to identify "impaired" water bodies that do not meet water quality standards. 33 U.S.C. § 1313(d)(1)(A). States must then develop total maximum daily loads of pollutants that will result in the water body meeting water quality standards. *Id.* § 1313(d)(1)(C).

312. In 1997, EPA entered into a consent decree with the Pacific Coast Federation of Fishermen's Associations that required EPA and WRCB to complete TMDLs for seventeen northern California watersheds by 2007. *Pacific Coast Federation of Fishermen's Associations et al. v. Marcus et al.*, No. 95-4474 MHP (N.D. Calif. 1997). Plaintiffs and EPA agreed to extend the deadline to 2010. See TMDL REPORT, *supra* note 322, at 1-3.

313. *Id.* app. C, D.

314. TMDL REPORT, *supra* note 312, tab. 1.2.

315. *Id.* § 6.3.2.A.

316. See *infra* Parts II.B, IV.B.2.



to violations of state water quality standards.<sup>317</sup> The Klamath TMDLs will include strict criteria for dissolved oxygen and heat, two problems greatly exacerbated by the dams.<sup>318</sup> If the KHSA terminates and PacifiCorp seeks a new FERC license, the TMDLs provide Oregon and California with solid justification to deny water quality certification. With this heightened threat of denial looming, PacifiCorp is more likely to follow through with dam removal under the KHSA.<sup>319</sup>

### **G. Permits, Potential Litigation, and the Case of Condit Dam**

The DRE will obtain all necessary permits for dam removal, including federal, state, and local permits.<sup>320</sup> Under the KHSA, permits may result in a termination<sup>321</sup> of the agreement under three scenarios: 1) the DRE cannot secure all the necessary permits for removal; 2) a permit is issued with a condition that is inconsistent with the KHSA; or 3) litigation over a permit results in a judgment inconsistent with the KHSA.<sup>322</sup> If efforts to remove Condit Dam on the White Salmon River in Washington are any indication, permitting issues and litigation may further jeopardize Klamath Basin dam removal by 2020.

Like the Klamath dams, Condit Dam is owned by PacifiCorp and blocks miles of once highly productive salmon spawning habitat.<sup>323</sup> Also like the Klamath dams, during relicensing for Condit Dam federal agencies imposed conditions and prescriptions under the FPA that made Condit Dam a net financial loss for PacifiCorp.<sup>324</sup> In 1999, PacifiCorp joined fifteen environmental groups and five governmental agencies in a settlement

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317. 33 U.S.C. § 1341.

318. See *infra* Part III.A.; see also TMDL REPORT, *supra* note 312. See also David Smith, Support, *concern and questions expressed at TMDL workshop*, SISKIYOU DAILY NEWS (Jan. 29, 2010), available at <http://www.siskiyoudaily.com/news/x1090828512/Support-concern-and-questions-expressed-at-TMDL-workshop>.

319. Despite their strong legal hand, the state water boards would likely prefer to avoid denying PacifiCorp 401 certification because PacifiCorp could respond with a lawsuit costing the states years of legal fees. This reality creates an incentive for the states to continue to press for dam removal under the KHSA. Another reason for Oregon to continue to push for dam removal is that the water provisions in the KBRA that promised to solve longstanding disputes require dam removal to become effective. See Ullman, *supra* note 7, at 9.

320. *Id.* § 7.2.1(C).

321. Termination will occur only if a cure for the event is not reached after the parties follow the “meet and confer” procedures. *Id.* §§ 8.11.1., 8.11.3.

322. *Id.* §§ 8.11.1(G), (F).

323. See Becker, *supra* note 12, at 813, 817.

324. See *id.* at 825–27. “The section 18 prescriptions in FERC’s adopted alternative doomed Condit Dam.” *Id.* at 826.

agreement to remove Condit Dam.<sup>325</sup> The settlement promised that PacifiCorp would begin removal of the dam by 2006.<sup>326</sup> PacifiCorp, however, struggled to obtain water quality certification from Washington, local permits from Skamania and Klickitat counties, and several federal permits for removal.<sup>327</sup> In 2005, responding to the permitting difficulties, the parties to the settlement delayed the date for removal until 2008.<sup>328</sup> In June 2009, Washington released a schedule for environmental review to inform state water quality certification, pushing the date for removal back to late 2010.<sup>329</sup> It remains to be seen if Klickitat and Skamania counties will sue the state of Washington over the certification, further delaying removal.<sup>330</sup>

The struggles to remove Condit Dam demonstrate that an agreement on dam removal is only the first step in a complicated process requiring approval from local, state, and federal agencies.<sup>331</sup> If the Condit is finally removed in late 2010 as currently planned, the permitting process will have taken eleven years from the date the parties agreed on removal.<sup>332</sup> Notably, the 2020 target date for Klamath dam removal is also eleven years after the parties on removal,<sup>333</sup> perhaps indicating that the parties to the KHSa took note of the slow pace of Condit permitting and planned accordingly. Still, removing the four Klamath dams would be a much larger project than removing Condit Dam, and the KHSa is a much more complex agreement

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325. Condit Hydroelectric Project Settlement Agreement, Condit Hydroelectric Project, FERC No. P-2342-011 (Oct. 21, 1999), *available at* <http://elibrary.ferc.gov/idmws/nvcommon/NVViewer.asp?Doc=146919:0> [hereinafter Condit Settlement].

326. *Id.* at 8.

327. *See* Becker, *supra* note 12, at 833–43.

328. Amendment of Decommissioning Application and Request for Continued Abeyance of the Decommissioning and Licensing Proceeding, FERC No. P-2342-000 (Feb. 5, 2005).

329. Thomas O'Keefe, *Comments Sought on Condit Dam Removal Environmental Review*, AMERICAN WHITEWATER (June 8, 2009), *available at* <https://www.americanwhitewater.org/content/Article/view/articleid/30439/display/full/>. Like California, Washington law requires state agencies to evaluate the environmental impacts of state actions, including 401(c) certification. State Environmental Policy Act, WASH. REV. CODE § 43.21C (2002); *see infra* Part III.B.2.

330. Kathie Durbin, *U.S. Agency Holds Sway on Dam Plan*, <http://www.fwee.org/news/getStory?story=1504> (last visited April 22, 2009).

331. *See generally* Becker, *supra* note 12. In April, 2009, Siskiyou County, California adopted a demolition ordinance that will require the DRE to obtain a permit from the County before removing the three lower dams, adding another needed approval for removal. Siskiyou County § 10-13.02 (2009).

332. The parties reached their settlement in October 1999. Condit Settlement, *supra* note 336.

333. The parties announced the AIP in November 2008 and removal is scheduled for January 2020. DOI News Release, *supra* note 26; KHSa, *supra* note 27, § 7.3.3.

than the Condit Settlement.<sup>334</sup> In all likelihood, the time needed for permitting could prove directly proportional to the size of the project. The historic scale of the KHSA, while exciting for restoration advocates, increases the chances that permitting or litigation could delay dam removal for years beyond the 2020 goal.

## V. Conclusion

Examination of the KHSA reveals a path to dam removal fraught with potential setbacks. One delay could involve the adoption of federal legislation,<sup>335</sup> a process admittedly outside of the parties' control.<sup>336</sup> Another is the potential difficulty in securing funding.<sup>337</sup> Still another is the controversy and high cost of the KBRA.<sup>338</sup> Finally, parties outside of the agreement could stall or derail the process through litigation.<sup>339</sup> To be sure, the target date for dam removal by 2020 may prove an optimistic one.

Yet the KHSA offers the best chance of dam removal on the Klamath River and represents the greatest hope for Klamath salmon.<sup>340</sup> By signing the KHSA, PacifiCorp has agreed to - if not entirely pay for removal - at least surrender its dams.<sup>341</sup> And for the first time in the history of the Klamath Basin, environmentalists and farmers, ranchers and fishermen, tribes, states, and the federal government agree on the path ahead.<sup>342</sup> As the parties to the KHSA admit, dam removal by 2020 is not a guarantee and will require more work and cooperation in the future.<sup>343</sup> The KHSA is not perfect, but its flaws can be mitigated if Klamath stakeholders rally behind it. It is indeed time to "give change a chance"<sup>344</sup> on the Klamath.

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334. Compare Condit Settlement, *supra* note 336, with KHSA, *supra* note 27.

335. See *infra* Part IV.B.C.

336. See AIP, *supra* note 25, §VI(A)(7).

337. See *infra* Part IV.C.

338. See *infra* Part IV.A.

339. See *infra* Part IV.F.

340. See Charles H. Bonham, Steve Rothert, Glen Spain, Brian Barr, Curtis Knight, Mark Rockwell and Petey Brucker, *Give change a chance in the Klamath River*, EUREKA TIMES-STANDARD (Jan. 22, 2010), available at [http://www.times-standard.com/othervoices/ci\\_14245528](http://www.times-standard.com/othervoices/ci_14245528) [hereinafter Bonham].

341. See *infra* Part IV.E.

342. See *id.*

343. See Bonham, et al., *supra* note 351.

344. *Id.*